

The North American Agreement on Environmental Cooperation: Has It Fulfilled Its Promises and Potential? An Empirical Study of Policy

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TABLE OF CONTENTS

I. INTRODUCTION	123
II. THE TRADE AND ENVIRONMENT NEXUS.....	124
III. NAFTA AND THE ENVIRONMENT: ORIGINS OF THE NAAEC.....	126
IV. INSTITUTIONAL MANDATES AND FRAMEWORK OF THE NAAEC...	128
V. PREVIOUS RESEARCH ON THE NAAEC.....	131
A. Past Studies on Overall Institutional Performance.....	131
B. Past Studies on Specific Aspects of the NAAEC.....	133
1. Promoting Environmental Cooperation	133
2. Coordinating with the NAFTA Free Trade Commission	134
3. Preparing Independent Reports.....	135
4. Administering Citizen Submission and Factual Record Process	136
5. Administering State-to-State Consultation and Dispute Resolution Process	137
6. Summary of Research on the NAAEC and CEC.....	137
VI. EMPIRICAL ASSESSMENT OF INSTITUTIONAL EFFECTIVENESS.....	138
A. Methodology	138
VII. EMPIRICAL ASSESSMENT OF RESULTS	142
A. Background on Survey Respondents	142

B. Overall Ranking of Principal Objectives.....	143
C. Enforcement Mandate	143
1. State-to-State Consultation and Dispute Resolution Process	144
2. Citizen Submission Process	146
a. Implementation of the Process	146
b. Factual Records – Substance and Outcomes.....	149
D. Integrating Trade and Environment Mandate	161
1. Assisting in the NAFTA FTC.....	162
2. NAFTA Environmental Effects Program	165
E. Independent Reporting Mandate	169
1. Ribbon of Life Report.....	169
2. Silva Reservoir Report.....	170
3. Continental Pollutant Pathways Report	171
4. Electricity and the Environment Report	171
5. Maize and Biodiversity Report.....	172
6. Survey Results	173
F. Environmental Cooperation Mandate.....	175
1. Sound Management of Chemicals	176
2. North American Bird Conservation Initiative.....	181
3. Enforcement and Compliance Cooperation Forum	186
VIII. CONCLUSIONS	190
APPENDIX A.....	192

I. INTRODUCTION

Twenty years ago, the United States (“U.S.”), Canada, and Mexico embarked on a groundbreaking effort to link their economies more closely together under the North American Free Trade Agreement¹ (“NAFTA”). Although a controversial trade agreement, NAFTA has nonetheless served to strengthen economic ties between the U.S. and two of its largest trading partners and create one of the largest free trade blocs in the world. But this economic integration is only part of the legacy of NAFTA; it also was the first trade agreement to inextricably and explicitly link trade policy with environmental protection goals.

As part of the NAFTA negotiations, the U.S., Mexico, and Canada also negotiated the North American Agreement on Environmental Cooperation² (“NAAEC”) to address the environmental impacts of trade liberalization in North America. Since the NAAEC entered into effect in 1994, the three countries have collectively invested over \$140 million³ into its implementation and the U.S. and Canada have continued to use its policy framework as the model for addressing the environmental effects of other free trade agreements.⁴

Despite the investment of considerable resources and the unquestioned precedence given to the NAAEC, there has not yet been a comprehensive assessment of its long-term effectiveness. Thus, it has been both difficult to gauge whether it has fulfilled its promises and potential, and difficult to substantiate its continued use as a model for other trade agreements. The empirical assessment of the implementation of the agreement documented herein will provide not only a benchmark for future assessments of the NAAEC, but also a basis for comparative analyses with similar agreements.

This article is organized as follows; first, general background on the environmental effects of trade liberalization is provided, followed by a discussion of the environmental effects associated with NAFTA and a synopsis of the negotiation of the NAAEC. Next, an overview of the NAAEC’s mandates and institutional framework is provided, followed

1. North American Free Trade Agreement, U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 289 (1993) [hereinafter NAFTA].

2. North American Agreement on Environmental Cooperation, U.S.-Can.-Mex., Sept. 14, 1993, 32 I.L.M. 1480 (1993) [hereinafter NAAEC].

3. The NAAEC does not specify funding levels for implementation; however, each country contributes \$3 million (U.S. dollars) annually to the budget of the Commission for Environmental Cooperation, established under NAAEC, *supra* note 2, art. 8 [hereinafter CEC]. Cumulative contributions through 2010 were \$144 million.

4. See, e.g., Gerda Van Roozendaal, *The Inclusion of Environmental Concerns in US Trade Agreements*, 18 ENVTL. POL. 431 (2009).

by a review of existing literature on the performance of the NAAEC to highlight key findings from previous research. The methodology and scope of the empirical assessment of the NAAEC are then described, followed by the results of the empirical assessment and conclusions.⁵

II. THE TRADE AND ENVIRONMENT NEXUS

Efforts to liberalize trade over the past sixty years at the global, regional, and bilateral levels have often been pursued without consideration to their potential environmental impacts. It was not until negotiation of the Canada – United States Free Trade Agreement⁶ and Uruguay Round of the General Agreement on Tariffs and Trade⁷ (“GATT”) in the late 1980s and early 1990s that environmental concerns were first raised.⁸ These concerns have persisted, resulting in on-going efforts to characterize the effects and identify policy prescriptions to mitigate them.

Although the trade and environment nexus is often presented in simple terms, free trade agreements do not cause direct and immediate environmental damage. Rather, damages most often arise when economic activities associated with freer trade exacerbate the unmitigated market or government failures.⁹ Trade liberalization may

5. The empirical assessment presented herein is documented in Linda Allen, *The Politics of Structural Choice of the Commission for Environmental Cooperation: The Theoretical Foundations of the Design of International Environmental Institutions* (Apr. 2005) (unpublished Ph.D. dissertation, Indiana University) (on file with author).

6. Canada – United State Free Trade Agreement, Oct. 4, 1988, 27 I.L.M. 281 (1988).

7. General Agreement on Tariffs and Trade, opened for signature on Jan. 1, 1948, T.I.A.S. No. 1700, 55 U.N.T.S. 194 [hereinafter GATT].

8. For CUSFTA, see STEVEN SHRYBMAN, *ENVIRONMENTAL IMPACTS OF BILL C-130: THE CANADA - U.S. TRADE AGREEMENT AS ENVIRONMENTAL LAW* (1988); STEVEN SHRYBMAN, *SELLING CANADA'S ENVIRONMENTAL SHORT: THE ENVIRONMENTAL CASE AGAINST THE TRADE DEAL* (1988); MICHELE SWENARCHUK, *ENVIRONMENTAL IMPACTS OF THE CANADA – U.S. FREE TRADE AGREEMENT* (1988). For GATT, see Mark Ritchie, *GATT, Agriculture, and the Environment: The US Double Zero Plan*, 20 *ECOLOGIST* 214 (1990); JANINE FERRETTI, ZEN MAKUCH, & KEN TRAYNOR, *INTERNATIONAL TRADE AND THE ENVIRONMENT* (1991); Charles Arden-Clarke, *The General Agreement on Tariffs and Trade, Environmental Protection, and Sustainable Development* (World Wildlife Federation International Discussion Paper 1991).

9. Arden-Clarke, *supra* note 8, at 3; ORGANISATION OF ECONOMIC CO-OPERATION AND DEVELOPMENT, *THE ENVIRONMENTAL EFFECTS OF TRADE*, 8-12 (1994) [hereinafter OECD]; Kym Anderson & Richard Blackhurst, *Trade, The Environment, and Public Policy*, in *THE GREENING OF WORLD TRADE ISSUES* 3, 4-7 (Kym Anderson & Richard Blackhurst eds., 1992); Matthew A. Cole, *Examining the Environmental Case*

give rise to both positive and negative effects; negative effects have historically been the primary concern.¹⁰ In general, the negative environmental effects of free trade are categorized as: (1) *scale* effects, (2) *sectoral*, structural, or composition effects, (3) *product* or technological effects, and (4) *legal* or regulatory effects.¹¹

Negative *scale* effects correspond to higher levels of pollution or faster depletion rates of natural resources due to expansion of production and consumption activities associated with increased trade.¹² *Sectoral* effects are associated with changes in the patterns of production and resource use within specific sectors, as liberalized trade alters the international location and intensity of production and consumption activities. These effects foster a relocation of pollution sources around the world.¹³ *Sectoral* effects may be negative when production or consumption shifts to geographic areas that are unsuited to the nature or intensity of the new activity.¹⁴ Negative *product* effects are associated with changes in trade flows of particular environmentally-damaging or harmful products, such as hazardous waste, endangered species, or toxic chemicals; for these effects, the characteristics of the product cause the adverse environmental impact.¹⁵

Legal effects generally refer to differing levels of domestic environmental safeguards or enforcement between trading partners, or a 'conflict of rules' between trade regime rules and domestic or international environmental laws.¹⁶ Differing levels of safeguards or enforcement may give rise to a competitive advantage that results in a downward harmonization of regulations [race to the bottom hypothesis], or migration of dirty industries to countries with lower standards or

Against Free Trade, 33 J. WORLD TRADE 183, 184 (1999).

10. Cole, *supra* note 9, at 185, 187, 193.

11. OECD, *supra* note 9, at 12-16; HÅKAN NORDSTRÖM & SCOTT VAUGHAN, SPECIAL STUDIES 4, TRADE AND ENVIRONMENT, 3, at 29-30 (1999); Per G. Fredriksson, *Trade, Global Policy, and the Environment: New evidence and issues*, in TRADE, GLOBAL POLICY AND THE ENVIRONMENT 1, at 1-3 (Per G. Fredriksson ed., 1999); Michael J. Ferrantino, *International Trade, Environmental Quality and Public Policy*, 20 WORLD ECON. 43, 48-50 (1997).

12. Fredriksson, *supra* note 11, at 1-3; OECD, *supra* note 9, at 13.

13. NORDSTRÖM & VAUGHAN, *supra* note 11, at 29; Anderson & Blackhurst, *supra* note 9, at 4-7; OECD, *supra* note 9, at 13-14; Fredriksson, *supra* note 11, at 1-3.

14. OECD, *supra* note 9, at 15-16; NORDSTRÖM & VAUGHAN, *supra* note 11, at 29.

15. OECD, *supra* note 9, at 12-13; Peter L. Lallas, *NAFTA and Evolving Approaches to Identify and Address "Indirect" Environmental Impacts of International Trade*, 5 GEO. INT'L ENVTL. L. REV. 519, 522, 526-527 (1998).

16. OECD, *supra* note 9, at 16-17; NORDSTRÖM & VAUGHAN, *supra* note 11, at 35-46; James Salzman, *Seattle's Legal Legacy and Environmental Reviews of Trade Agreements*, 31 ENVTL. L. 503, 529 (2001).

enforcement [pollution havens or industrial flight hypotheses].¹⁷ A conflict between trade regime rules and environmental laws may occur when regime rules restrict the use of trade measures for enforcement of international environmental laws and treaties, or they restrict domestic environmental regulations if they are determined to be non-tariff barriers to trade.¹⁸

Taking into consideration the complexity of linkages between trade liberalization and environmental quality, and the existence of other non-policy factors, it is difficult to predict the specific environmental effects that may emerge as trade is liberalized between countries. In general, however, the emergence of negative scale, sectoral, and product effects will likely depend on the substantive focus or areas of liberalization of a particular free trade agreement, whereas the legal effects depend more generally on non-substantive trade regime rules or levels of environmental protection in each country. For NAFTA, the anticipated environmental effects of primary concern were the legal effects, followed by scale and sectoral effects, especially in Mexico.

III. NAFTA AND THE ENVIRONMENT: ORIGINS OF THE NAAEC

Environmental groups in the U.S. raised concerns over the potential environmental impacts of trade liberalization in North America shortly after the U.S. and Mexico announced their intent to negotiate a free trade agreement.¹⁹ Initially, these groups had limited access to the trade policy negotiations and environmental concerns were barely on the radar at the onset of negotiations. As the negotiations progressed, however, the trickle of concerns turned into a torrent. Indeed, by the time NAFTA was submitted for legislative approval, the resolution of environmental concerns had become a political imperative required for ultimate passage

17. NORDSTRÖM & VAUGHAN, *supra* note 11, at 35-46; WILLIAM J. BAUMOL & WALLACE E. OATES, *THE THEORY OF ENVIRONMENTAL POLICY* (1988); Cole, *supra* note 9, at 190-191; Ferrantino, *supra* note 11, at 48-50.

18. NORDSTRÖM & VAUGHAN, *supra* note 11, at 35-46; Kerry Krutilla, *World Trade, the GATT, and the Environment*, in *ENVIRONMENTAL POLICY TRANSNATIONAL ISSUES AND NATIONAL TRENDS*, 87, 97-104 (Lynton K. Caldwell & Robert V. Bartlett eds., 1997) [hereinafter *ENVIRONMENTAL POLICY*]; Cole, *supra* note 9, at 191-192.

19. The U.S. and Mexico formally announced their intent to negotiate a free trade agreement in June 1990, Canada joined the negotiations in Jan. 1991, and the NAFTA was finalized in Aug. 1992. See BARBARA HOGENBOOM, *MEXICO AND THE NAFTA ENVIRONMENT DEBATE*, at 112-113 (1998).

of the trade agreement.²⁰

The principal concern identified for NAFTA was the potential for liberalized trade to give rise to pollution havens in Mexico as industries relocated to take advantage of lax enforcement of environmental laws in that country, with possible pollution spillovers along the U.S. – Mexico border.²¹ Other concerns were subsequently identified, including the use of trade regime rules to challenge legitimate domestic environmental regulations and standards as non-tariff barriers to trade, the downward harmonization of environmental laws and standards as trading partners strive for common standards, the accelerated exploitation of natural resources due to liberalization of certain sectors, and a general increase in levels of pollution due to economic growth.²²

To address these concerns, the three NAFTA countries first sought, in 1991 and 1992, to incorporate a limited number of environmental provisions directly into NAFTA, as well as to develop supplemental environmental policies or programs in parallel with the trade agreement.²³ However, when these measures proved insufficient to

20. For a comprehensive history of environmental issues within the context of the NAFTA negotiations, *see generally* PIERRE MARC JOHNSON & ANDRE BEAULIEU, *THE ENVIRONMENT AND NAFTA: UNDERSTANDING AND IMPLEMENTING THE NEW CONTINENTAL LAW* (1996); JOHN J. AUDLEY, *GREEN POLITICS AND GLOBAL TRADE, NAFTA AND THE FUTURE OF ENVIRONMENTAL POLITICS* (1997); FREDERICK MAYER, *INTERPRETING NAFTA, THE SCIENCE AND ART OF POLITICAL ANALYSIS* (1998); HOGENBOOM, *supra* note 19.

21. U.S. Trade Representative, *Review of U.S.-Mexico Environmental Issues, February 25, 1992, reprinted in NAFTA AND THE ENVIRONMENT, SUBSTANCE AND PROCESS* 205 (Daniel Magraw ed., 1992) [hereinafter *NAFTA AND THE ENVIRONMENT*]. The highly polluted Mexican border region served as a harbinger for what might occur elsewhere in Mexico as trade and investment were liberalized.

22. *See, e.g.*, National Wildlife Federation, *ENVIRONMENTAL CONCERNS RELATED TO A UNITED STATES-MEXICO FREE TRADE AGREEMENT, reprinted in NAFTA AND THE ENVIRONMENT, supra* note 21, at 681; *The North American Free Trade Agreement: Hearing before the H. Subcomm. on International Economic Policy and Trade and on Western Hemisphere Affairs of the Comm. on Foreign Relations, 102nd Cong.*, 64 to 81 (1991) (Statement of Stewart Hudson); *Protecting the Environment in North American Free Trade Agreement Negotiations: Hearing before the H. Subcomm. on Regulation, Business Opportunities, and Energy of the Comm. on Small Business, 102nd Cong.* 31-34, 104-113 (1991) (Statement of Michael McCloskey); *North American Free Trade Agreement: Hearing before the H. Subcomm. on Commerce, Consumer Protection, and Competitiveness of the Comm. on Energy and Commerce, 102nd Cong.*, 113 to 133 (1991) (Statement of Richard Kamp); *Proposed Negotiation of a Free Trade Agreement with Mexico: Hearing before the H. Subcomm. on Trade of the Comm. on Ways and Means, 102nd Cong.*, 213 to 248 (1991) (Statement of David E. Ortman); *Trade and Environment: Hearing before the S. Subcomm. on International Trade of the Comm. on Finance, 101st Cong.*, 66-69 (1991) (Statement of Lynn Greenwalt).

23. George Bush, *Response of the Administration of George Bush to Issues Raised*

obtain support of the environmentalists for NAFTA approval in 1992, the countries negotiated the NAAEC in 1993 and established a trilateral commission, the North American Commission for Environmental Cooperation ("CEC"), to address the remaining legal, sectoral, and scale effects associated with NAFTA.²⁴

Overall, the CEC has a remit to promote environmental cooperation and improve enforcement of environmental laws in North America, as well as limited authority to conduct independent investigations and support the NAFTA Free Trade Commission ("FTC") to promote integration of trade and environment objectives under NAFTA.²⁵ The most controversial aspect of the NAAEC was the establishment of a state-to-state dispute resolution process. This process permitted assessing fines or levying sanctions to address lax enforcement of environmental laws, which remained the predominant concern for NAFTA.²⁶ In the end, the NAAEC addressed in principle the major environmental concerns for NAFTA and was sufficient to neutralize the environment as an issue during the ultimate approval of the agreement in 1993.

IV. INSTITUTIONAL MANDATES AND FRAMEWORK OF THE NAAEC

Given the multitude of environmental concerns identified for NAFTA, the CEC was endowed with several major substantive mandates, each one was intended to address one or more of the concerns. In general, the major mandates of the CEC are: (1) promoting environmental cooperation on programmatic and regulatory issues through voluntary initiatives, (2) preparing independent reports on environmental issues of regional significance, (3) improving enforcement of environmental laws through administration of the citizen submission process and state-to-state consultation and dispute resolution process, and (4) supporting the environmental goals and objectives of NAFTA through coordination with the NAFTA FTC.²⁷

These mandates are reflected in the annual work program of the

in Connection with the Negotiation of a North American Free Trade Agreement, reprinted in NAFTA AND THE ENVIRONMENT, supra note 21, at 163.

24. See *Hills Letter on NAFTA Environmental Commission*, INSIDE U.S. TRADE, Oct. 2, 1992, at 6.

25. The NAFTA Free Trade Commission is the tri-national body comprised of trade ministers from the U.S., Canada, and Mexico that oversees implementation of the NAFTA, NAFTA, *supra* note 1, art. 2001 [hereinafter FTC].

26. NAAEC, *supra* note 2, Part 5. See Mayer, *supra* note 20, at 197-203.

27. See JOHNSON & BEAULIEU, *supra* note 20, at 140-149.

CEC, which defines the major programmatic and procedural activities to be undertaken by the CEC each year. Since the CEC was established in 1994, its budget has remained constant²⁸ and on average, around fifty to sixty percent of the funding is allocated to implementing voluntary environmental cooperative initiatives, six to seven percent to administering the citizen submission process under Articles 14 and 15, two to three percent to preparing independent Secretariat reports under Article 13, and the remaining thirty to forty percent on logistical, administrative, management, or communication activities.²⁹

Historically, the majority of the CEC's substantive work has been related to cooperative initiatives clustered under four core programmatic themes: Conservation of Biodiversity; Law and Policy; Environment, Economy, and Trade; Pollutants and Health.³⁰ Each of these core areas encompasses a number of different programs covering a very broad range of topics. Table 1 in Appendix A provides a summary of the CEC's cooperative initiatives from 1995 to 2010 with their respective years of implementation; Figure 1 provides a breakdown of the cumulative funding from 1995 to 2010 for the four core programmatic areas.³¹

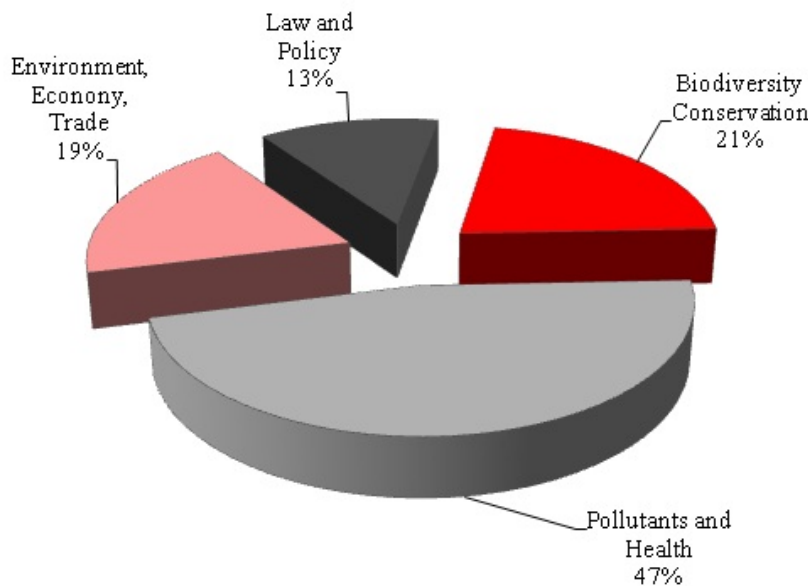
28. The CEC has an annual budget of \$9 million (U.S. dollars), *see* CEC *supra* note 3.

29. Breakdown of funding is derived from published CEC annual budgets and operational reports, *infra* note 31.

30. The specific names of core areas have changed over time, but the general focus has remained essentially the same. Conservation and Biodiversity initiatives are focused on promoting conservation, sound management, and sustainable use of North American biodiversity; Law and Policy initiatives are focused on enhancing regional cooperation in the development and implementation of environment laws and regulations in each country; Economy, Trade, and Environment initiatives are focused on analyzing the relationship between the environment, economy, and trade in the North American; Pollutants and Health initiatives are focused on addressing adverse effects to human and ecosystem health from pollution that is regional (continent-wide) in scale.

31. Table 1 and Figure 1 were derived from CEC annual reports: 1995 ANNUAL REPORT (1995); 1995 PROGRAM REPORT (1996); 1996 ANNUAL REPORT (1997); 1997 ANNUAL REPORT (1997); 1998 ANNUAL PROGRAM AND BUDGET (1998); 1998 ANNUAL REPORT (1998); NORTH AMERICAN AGENDA FOR ACTION 1999-2001 (1999); 1999 ANNUAL REPORT (1999); NORTH AMERICAN AGENDA FOR ACTION 2000-2002 (2000); NORTH AMERICAN AGENDA FOR ACTION 2001-2003 (2001); NORTH AMERICAN AGENDA FOR ACTION 2002-2004 (2002); NORTH AMERICAN AGENDA FOR ACTION 2003-2005 (2003); NORTH AMERICAN AGENDA FOR ACTION 2004-2006 (2004); 2002 ANNUAL REPORT (2002); OPERATIONAL PLAN: 2004-2006 (2003); OPERATIONAL PLAN: 2006-2008 (2005); OPERATIONAL PLAN, 2007-2009 (2007); 2008 OPERATIONAL PLAN (2007); 2009 OPERATIONAL PLAN (2009); 2010 OPERATIONAL PLAN (2010). The CEC did not publish an annual operational plan for 2005.

Figure 1: Total Funding Allocation for Cooperative Initiatives, 1995 to 2010



Institutionally, the CEC has a tripartite bureaucratic structure comprised of a Council of Ministers (“Council”), a Secretariat, and a Joint Public Advisory Committee (“JPAC”). The Secretariat, a permanent bureaucratic organization located in Montreal, conducts the day-to-day operations of the CEC and prepares its annual work program and budget.³² The Secretariat also prepares independent reports under Article 13 and administers the citizen submission process under Articles 14 and 15.³³ The Council, comprised of cabinet level officials³⁴ from the NAFTA countries, sets the priorities for the CEC, serves as a gatekeeper for the Secretariat’s independent work under Articles 13, 14, and 15, cooperates with the NAFTA FTC, and administers the state-to-state

32. CEC, NAFTA’S INSTITUTIONS, THE ENVIRONMENTAL POTENTIAL AND PERFORMANCE OF THE NAFTA FREE TRADE COMMISSION AND RELATED BODIES (1997); see also J. Owen Saunders, *The NAFTA and the North American Agreement on Environmental Cooperation*, in ENVIRONMENTAL POLICY, *supra* note 18, at 289-291.

33. NAAEC, *supra* note 2, arts. 11, 12, 13, 14, 15, 16.

34. NAAEC, *supra* note 2, Part 3, art. 9 § 1. The Council is to be comprised of cabinet-level officials or equivalent representatives without reference to particular agencies. Since the NAAEC entered into effect, the Council has been comprised of the Administrator of the U.S. Environmental Protection Agency, the Secretary of the Mexican Ministry of Environment and Natural Resources, and Minister of Environment Canada.

dispute resolution process.³⁵ The JPAC, a standing committee comprised of five representatives from each country,³⁶ serves in a traditional advisory role to the Council and Secretariat.³⁷

V. PREVIOUS RESEARCH ON THE NAAEC

There exists a fairly sizable body of literature that provides a mix of perspectives on the history and operation of the NAAEC and CEC, with a limited amount focused on assessing institutional effectiveness.³⁸ To date, there have been three modest assessments of the implementation and performance of the NAAEC and CEC, as well as more focused research on particular programs or aspects of the NAAEC, which, taken together, give a partial picture of the institutional performance and effectiveness of the NAAEC and CEC at different points in time.

A. Past Studies on Overall Institutional Performance

DiMento and Doughman³⁹ reviewed implementation of the NAAEC and functioning of the CEC during its first two years of operation, and concluded that, while some aspects of implementation of the NAAEC had been problematic, on the whole it appeared to be an impressive example of an innovative initiative in international environmental cooperation.⁴⁰ The study found that the CEC was most successful in promoting cooperation and least successful in seeking sanctions to mitigate violations of environmental laws.⁴¹ Overall, about seventy-five

35. NAAEC, *supra* note 2, Part 3, arts. 9, 10, 11, 12, 13, 14, 15, 16. There are eighteen (18) specific areas for which the Council may develop recommendations, as well as any other areas that it may decide warrant attention, so essentially the CEC may work on practically any environmental issue in North America.

36. NAAEC, *supra* note 2, Part 3, art. 16. The composition of the JPAC is not specified within the NAAEC. Historically, it has been comprised of representatives from nongovernmental organizations, national and subnational governments, academia, indigenous communities, and the private sector.

37. NAAEC, *supra* note 2, Part 3, art. 16.

38. See, e.g., LINDA ALLEN, LITERATURE REVIEW OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (2003), available at http://www.unisfera.org/IMG/pdf/Unisfera_-_NAAEC_Literature_Review.pdf.

39. Joseph F. DiMento & Pamela M. Doughman, *Soft Teeth in the Back of the Mouth: The NAFTA Environmental Side Agreement Implemented*, 10 GEO. INT'L ENVTL. L. REV. 651 (1998). Data for this study were obtained from a review of archival records, an opinion survey (n=57, 30% response rate) to individuals involved with the CEC, interviews with key stakeholders, and attendance at various CEC events.

40. *Id.* at 653, 740-742.

41. *Id.* at 692-695.

percent of the respondents felt that some but not all of the objectives of the NAAEC were being met.⁴²

The Four-Year Review⁴³ was a self-evaluation required under the NAAEC⁴⁴ that examined the operation and effectiveness of the NAAEC during its first four years of implementation. Overall, the review found that while considerable progress had been made in implementing some of the provisions of the NAAEC, there were numerous implementation challenges.⁴⁵ Most significant were a lack of focus on the annual program activities and strategic vision for the CEC, and conflicting views and undue influence of the three national governments on the Secretariat work.⁴⁶ Despite these shortcomings, the Four-Year Review found some effective implementation efforts, in particular efforts related to fostering cooperation between the countries.

The Ten-Year Review and Assessment⁴⁷ was a non-mandated review commissioned by the Council at the ten-year anniversary of the NAAEC. Overall, the Ten Year Review found that the CEC had helped to advance trilateral cooperation on several key environmental issues and promote transparency and public participation.⁴⁸ The performance of the CEC, however, had been hampered by several factors.⁴⁹ The major factors hindering its performance included: a lack of focus and strategic direction in the CEC's work; a lack of clarity of the respective roles and responsibilities of the Council, Secretariat, and JPAC; disagreement between the Council and Secretariat over implementation of the citizen submission process; and lack of a broad based constituency.⁵⁰ As a result of these shortcomings, the CEC had not yet realized its full potential.⁵¹

42. *Id.* at 691- 692, 694- 695.

43. FOUR-YEAR REVIEW OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION, REPORT OF THE INDEPENDENT REVIEW COMMITTEE (1998) [hereinafter FOUR-YEAR REVIEW]. Data were obtained from a review of published literature and archival records and interviews with national governments and CEC officials.

44. NAAEC, *supra* note 2, Part Two, art. 10 § 1(b).

45. FOUR-YEAR REVIEW, *supra* note 43, at vii-xii.

46. *Id.* at 10, 12, 34-37

47. PIERRE MARC JOHNSON, ROBERT PAGE, JENNIFER A. HAVERKAMP, JOHN F. MIZROCH, DANIEL BASURTO, & BLAN CA TORRES, TEN YEARS OF NORTH AMERICAN ENVIRONMENTAL COOPERATION (2004). Data were obtained from a review of published literature and archival records, interviews with key stakeholders, publicly solicited input, and contracted research.

48. *Id.* at x-xi.

49. *Id.*

50. *Id.* at 11, 42-46, 50, 53, 55, 56.

51. *Id.* at x.

B. Past Studies on Specific Aspects of the NAAEC

In addition to the general assessments of the NAAEC, other research has examined specific aspects, programs, or functions of the agreement and the CEC over the past fifteen years. These, are summarized below under the following general categories that correspond to the major substantive mandates of the CEC: promoting environmental cooperation, coordinating with NAFTA FTC, preparing independent reports, administering citizen submission and factual record process, and administering the state-to-state dispute resolution process.

1. Promoting Environmental Cooperation

The majority of the CEC's work has historically consisted of voluntary environmental cooperative initiatives. Between 1995 and 2010, the CEC had undertaken over eighty different cooperative initiatives⁵² under its four core programmatic areas.⁵³ The success of these initiatives has varied over time.⁵⁴ Overall, it appears that initiatives are most successful when they reflect the environmental priorities of all three countries, or they are consistent with obligations or efforts of the countries under other global environmental accords.⁵⁵ Examples of initiatives that have been effective at facilitating cooperation between the countries include the North American Biodiversity Information Network and North American Bird Conservation Initiative⁵⁶ ("NABCI"), which have fostered closer coordination on conservation of biodiversity in North America.⁵⁷ The Pollutant Release and Transfer Registry ("PRTR")

52. The number of initiatives is based on annual reports and budgets for the CEC from 1995 to 2010, *see* CEC reports, *supra* note 31.

53. *Supra* note 30.

54. Greg Block, *The CEC Cooperative Program of Work*, in GREENING NAFTA, THE NORTH AMERICAN COMMISSION FOR ENVIRONMENTAL COOPERATION 25, 28 (David L. Markell & John H. Knox eds., 2003) [hereinafter GREENING NAFTA].

55. JAN GILBREATH, THE ENVIRONMENT AND TRADE: PREDICTING A COURSE FOR THE WESTERN HEMISPHERE USING THE NORTH AMERICAN EXPERIENCE 27 (2001).

56. *See generally* North American Bird Conservation Initiative – International, NABCI *Bird Conservation Regions*, <http://www.nabci.net/International/English/bcrmap.html> (last visited Jan. 22, 2011); North American Bird Conservation Initiative – International, *Background, Vision, and Strategy*, (last visited Jan. 22, 2011).

57. Block, *supra* note 54, at 34; Jonathan M. Andrews & Brad A. Andres, *Towards Integrated Bird Conservation in North America: A Fish and Wildlife Service Perspective*, 25 (SUPPL. 2) WATERBIRDS 122, 125 (2002); CEC, ECOLOGICAL REGIONS OF NORTH AMERICA: TOWARD A COMMON PERSPECTIVE (1997); *see also* John R. Sauer, Jane E. Fallon & Rex Johnson, *Use of North American Breeding Bird Survey Data to Estimate Population Change for Bird Conservation Regions*, 67 J. WILDLIFE MGMT. 372, 372 (2003); Robert L. Glicksman, *The CEC's Biodiversity Conservation Agenda*, in

and Sound Management of Chemicals ("SMOC") have likewise helped foster more standardized and comparable regulatory approaches to toxic chemical usage between the three countries.⁵⁸ Despite the success of some initiatives, some researchers feel that the CEC is spread too thin with too many cooperative initiatives⁵⁹ and some initiatives a lack of clarity in program goals, methodologies, and implementing responsibilities respectively for the Secretariat, countries, and other stakeholders.⁶⁰

2. Coordinating with the NAFTA Free Trade Commission

Up through 2010, there had been almost no meaningful coordination between the CEC Council and NAFTA FTC to ensure the environmental goals of NAFTA are being achieved. The Council had not been involved in any of NAFTA's environment-related trade disputes nor developed any concrete joint initiatives with the FTC, despite considerable pressure and numerous meetings between trade and environmental officials to identify specific areas for coordination.⁶¹ The lack of coordination between the Council and the FTC may be due to a lack of political will

GREENING NAFTA, *supra* note 54, at 57.

58. Mark S. Winfield, *North American Pollutant Release and Transfer Registries: A Case Study in Environmental Policy Convergence*, in GREENING NAFTA, *supra* note 54, at 38, 46-47, 5050; *see also* Block, *supra* note 54, at 28.

59. GARY HUFBAUER, REGINALD JONES, & DIANA OREJAS, INSTITUTE FOR INTERNATIONAL ECONOMICS, SPEECH DELIVERED AT THE INTERNATIONAL POLICY FORUM, NAFTA AND THE ENVIRONMENT AMERICAS: LESSONS FOR TRADE POLICY (Feb. 28, (2001), *available at*, <http://ctrc.sice.oas.org/geograph/papers/ie/hufbauer0301-1.asp>.

60. JOHNSON ET AL., *supra* note 47, at x, xii, 11, 50-52; Glicksman, *supra* note 57, at 70.

61. See OPERATIONAL PLAN: 2004-2006, *supra* note 31, at 40, for proposal by CEC to identify areas for coordination with the FTC; *see also* GARY C. HUFBAUER, DANIEL C. ESTY, DIANA OREJAS, LUIS RUBIO & JEFFREY J. SCHOTT, NAFTA AND THE ENVIRONMENT: SEVEN YEARS LATER 36-37 (2000); Laura Carlsen & Hilda Salazar, *Limits to cooperation: A Mexican Perspective on the NAFTA's Environmental Side Agreement and Institutions*, in GREENING THE AMERICAS, NAFTA'S LESSONS FOR HEMISPHERIC TRADE, at 221 (Carolyn L. Deere & Daniel C. Esty eds., 2002) [hereinafter GREENING THE AMERICAS]; Mary Kelly & Cyrus Reed, *The CEC's Trade and Environment Program: Cutting Edge Analysis, but Untapped Potential*, in GREENING NAFTA, *supra* note 54, at 101; Andrea Abel, *NAFTA's North American Agreement for Environmental Cooperation: A Civil Society Perspective*, AM. PROGRAM POL'Y REP. (Mar. 1, 2003), *available at*, <http://www.cipamericas.org/archives/1081> (last visited Mar. 12, 2011); Howard Mann, *NAFTA and the Environment: Lessons for the Future*, 13 TUL. ENVTL. L.J. 387, 399-400 (2000); Janine Ferretti, *Innovations in Managing Globalization: Lessons from the North American Experience*, 15 GEO. INT'L ENVTL. L. REV. 367, 377 (2003).

on the part of the Council, or the fact that the Council's authority is derived from the NAAEC and not NAFTA. Whatever the reason, it lacks a strong institutional and legal prerogative to pursue cooperation and trade officials may be reluctant to give a greater substantive role for the environment in trade policy implementation.⁶²

3. *Preparing Independent Reports*

Six independent Secretariat reports had been prepared as of 2010, and overall these reports may have helped raised awareness on particular environmental issues. In some instances, they may have led to more concrete actions on these issues, or at least attitudinal changes amongst affected stakeholders.⁶³ For example, the Secretariat report on the Silva Reservoir bird die-off⁶⁴ in Mexico may have served as a basis for establishing an environmental council and action plan to address the causes of the die-off⁶⁵, while the *Continental Pollutant Pathways*⁶⁶ study has served as a technical basis for coordination of air pollution policies in North America.⁶⁷ The *Ribbon of Life* report⁶⁸ on the San Pedro River may have contributed to development of new institutions on the U.S. side to coordinate stakeholders in the management of the watershed.⁶⁹ While these reports may have had some impact, their effectiveness is limited because their recommendations are not binding on the countries or other

62. Abel, *supra* note 61; Mann, *supra* note 61, at 399-402; Ferretti, *supra* note 61, at 377; Roberto Sanchez, *Governance, Trade, and the Environment in the Context of NAFTA*, 45 AM. BEHAV. SCI. 1369, 1374 (2002).

63. See, e.g., Dan A. Tarlock & John E. Thorson, *Coordinating Land and Water Use in the San Pedro River Basin: What Role for the CEC?*, in GREENING NAFTA, *supra* note 54, at 229-230; Frona M. Powell, *The North American Commission for Environmental Cooperation's San Pedro Report: A Case Study and Analysis of the CEC Process*, 6 ENVTL. L. 809, 835-837 (2000).

64. CEC, CEC SECRETARIAT REPORT ON THE DEATH OF MIGRATORY BIRDS AT THE SILVA RESERVOIR (1995) [hereinafter CEC SILVA RESERVOIR REPORT].

65. Talli Nauman, *NAFTA's First Real Test*, AUDUBON, Sept.-Oct., 1995, at 96-99 (on file with author).

66. CEC, CONTINENTAL POLLUTANT PATHWAYS: AN AGENDA FOR COOPERATION TO ADDRESS LONG-RANGE TRANSPORT OF AIR POLLUTION IN NORTH AMERICA (1997) [hereinafter CEC CONTINENTAL POLLUTANT PATHWAYS REPORT].

67. HUFBAUER ET AL., *supra* note 61, at 27.

68. CEC, RIBBON OF LIFE: AN AGENDA FOR PRESERVING TRANSBOUNDARY MIGRATORY BIRD HABITAT ON THE UPPER SAN PEDRO RIVER (1999) [hereinafter CEC RIBBON OF LIFE REPORT].

69. Robert G. Varaday, Margaret A. Moote, & Robert Merideth, *Water Management Options for the Upper San Pedro Basin: Assessing the Social and Institutional Landscape*, 40 NAT. RESOURCES J. 223, 234-235 (2000); UPPER SAN PEDRO RIVER BASIN, at 13-16, available at www.snre.umich.edu/emi/pubs/transboundary/San%20Pedro.pdf.

affected stakeholders⁷⁰ and because the CEC has no well-defined follow-up role once the report is released.⁷¹

4. Administering Citizen Submission and Factual Record Process

The citizen submission and factual record process⁷² has received more attention than any other aspect of the CEC or NAAEC. Implementation of the process, however, has often been controversial.⁷³ Up through 2010, sixteen factual records had been completed by the Secretariat, but overall it appears that these records have had a very limited influence on enforcement actions in the countries. For example, the Cozumel factual record⁷⁴ may have contributed to improved management of marine resources near Cozumel,⁷⁵ while the Metales y Derivados factual record⁷⁶ may have prompted the U.S. and Mexican governments to initiate joint efforts to remediate and redevelop brownfield sites along their shared border.⁷⁷ The British Columbia Hydro and Power Authority ("BC Hydro") factual record⁷⁸ may have spurred Canada into instituting a water use planning process to improve enforcement under the Fisheries Act.⁷⁹

70. Mary Kelly, *Carbón I/II: An Unresolved Binational Challenge*, in ENVIRONMENTAL MANAGEMENT ON NORTH AMERICA'S BORDERS 189, at 198 (Richard Kiy & John D. Wirth eds., 1998) [hereinafter ENVIRONMENTAL MANAGEMENT]; Powell, *supra* note 63, at 835.

71. Tarlock & Thorson, *supra* note 63, at 229.

72. NAAEC, *supra* note 2, arts. 14, 15.

73. The guidelines are outlined in CEC, BRINGING THE FACTS TO LIGHT, A GUIDE TO ARTICLES 14 AND 15 OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (2007) [hereinafter CEC BRINGING THE FACTS TO LIGHT].

74. CEC, FINAL FACTUAL RECORD THE CRUISE SHIP PIER PROJECT IN COZUMEL, QUINTANA ROO (1997) [hereinafter CEC COZUMEL PIER FACTUAL RECORD].

75. INSTITUTO NACIONAL DE ECOLOGÍA, PROGRAMA DE MANEJO PARQUE MARINO NACIONAL ARRECIFES DE COZUMEL (1998); Gustavo Alanis-Ortega, *Public Participation within NAFTA's Environmental Agreement: The Mexican Experience*, in LINKING TRADE, ENVIRONMENT, AND SOCIAL COHESION, NAFTA EXPERIENCES, GLOBAL CHALLENGES 183, 184-185 (John J. Kirton & Virginia W. Maclaren eds., 2002) [hereinafter LINKING TRADE].

76. CEC, METALES Y DERIVADOS FINAL FACTUAL RECORD (2002) [hereinafter CEC METALES FACTUAL RECORD].

77. George Kourous, *NAFTA Governments Flirt with Selling Out Environmental Side Accord*, UPDATER, June 14, 2000.

78. CEC, FINAL FACTUAL RECORD FOR SUBMISSION SEM-97-001(BC ABORIGINAL FISHERIES COMMISSION, ET AL.) (2000) [HEREINAFTER CEC BC HYDRO FACTUAL RECORD].

79. Jonathan Graubart, *Giving Meaning to New Trade-Linked "Soft Law" Agreements on Social Values: A Law-In-Action Analysis of NAFTA's Environmental Side*

Although these factual records may have had some limited impact on policy or enforcement, they did not come close to resolving fully the concerns of the submitters.⁸⁰ Rather, the submitters have found the main value of the process and the factual records to be the symbolic validation of their claims, the added information obtained from the records, and the fact that the governments are being required to give a formal justification for their behavior.⁸¹

5. Administering State-to-State Consultation and Dispute Resolution Process

The state-to-state consultation and dispute resolution process⁸² was established to resolve claims, by one country against another, of a persistent pattern of failure to effectively enforce its domestic environmental laws, with ultimate recourse to fines or snap-back tariffs,⁸³ and was considered to be the “teeth” of the NAAEC. However, as of 2010, the process had not been used. As currently designed, the Part 5 process appears to be quite time-consuming and onerous. It has been recommended that Part 5 be renegotiated to make it more functional,⁸⁴ or that the punitive measures be eliminated altogether,⁸⁵ even though realistically the likelihood of these measures ever being invoked is quite remote.⁸⁶

6. Summary of Research on the NAAEC and CEC

Overall, past research indicates that implementation of the NAAEC has produced some tangible results but there have also been some problematic aspects that have plagued the work of the CEC from the onset. The CEC has been most successful at promoting voluntary environmental cooperation through its efforts of convening the countries

Agreement, 6 UCLA J. INT’L L. & FOREIGN AFF. 425, 442-443 (2002).

80. *Id.*, at 448-449.

81. *Id.*, at 448-450.

82. NAAEC, *supra* note 2, Part 5, arts. 22-36.

83. Kevin W. Patton, *Dispute Resolution Under the North American Commission on Environmental Cooperation*, 5 DUKE J. COMP. & INT’L L. 87, 87-90 (1994).

84. HUFBAUER, ET AL., *supra* note 61, at 57.

85. JOHN AUDLEY & SCOTT VAUGHAN, *TIME FOR THE NAFTA ENVIRONMENTAL WATCHDOG TO GET SOME TEETH*, available at <http://carnegieendowment.org/publications/index.cfm?fa=view&id=1300> (last visited Oct. 16, 2011).

86. David Schorr, *NAFTA and the Environment* in FREE TRADE: RISKS AND REWARDS 226, at 231 (L.I. MacDonald ed., 2000) [hereinafter FREE TRADE].

and other stakeholders, and facilitating the exchange of information on regional environmental issues that reflect priorities for all three countries.⁸⁷ At the same time, the CEC has been hindered by a general lack of focus in its work, a lack of political support by the three countries, continuing controversy over the implementation of the citizen submission process, and weak public participation. While the past studies have provided important insights into the effectiveness of the NAAEC and CEC, they provide only a partial picture at different times. The empirical assessment discussed in the remaining sections serves to provide a more comprehensive assessment of the implementation of the NAAEC.

VI. EMPIRICAL ASSESSMENT OF INSTITUTIONAL EFFECTIVENESS

There are several approaches that can be used to assess the performance of an international institution, including problem-solving, legal, economic, normative, and political approaches.⁸⁸ Given the soft law nature of the NAAEC, with its limited number of specific obligations, the legal and political approaches were used in this assessment to examine institutional effectiveness. In general, the legal approach assesses the effectiveness of an institution by the degree to which contractual obligations, typically defined within an international agreement, are met.⁸⁹ The political approach gauges institutional effectiveness in terms of specific changes in the behavior of actors, in the interest of actors, or in the policies and performance of institutions that in turn contribute to the improved management of the targeted problem.⁹⁰

A. Methodology

Overall, the institutional effectiveness of the CEC was ascertained by examining a representative number of activities and/or legal

87. See, e.g., Winfield, *supra* note 58, at 51; Ferretti, *supra* note 61, at 371-72; Pierre Marc Johnson, *Trade Liberalization and the Environment, from NAFTA to FTAA*, ISUMA, Spring 2000, at 62, 66.

88. For a full description of the approaches, see Thomas Bernauer, *The Effect of International Environmental Institutions: How We Might Learn More*, 49 INT'L ORG. 351 (1995); Oran Young & Marc Levy, *The Effectiveness of International Environmental Regimes*, in THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL REGIMES: CAUSAL CONNECTIONS AND BEHAVIORAL MECHANISMS 1, at 4-6 (Oran Young ed., 1999).

89. Young & Levy, *supra* note 88, at 4.

90. *Id.* at 5.

obligations associated with the principal mandates of the CEC, which were selected based on longevity in implementation⁹¹. Table 2 lists the foci of the empirical assessment. Data sources and collection methods for the assessment included a review of pertinent documentation and archival records,⁹² interviews with key stakeholders,⁹³ a self-administered stakeholder opinion survey,⁹⁴ and direct observations at various CEC sponsored events or meetings.⁹⁵ A breakdown of the

91. The empirical assessment of the effectiveness of the CEC covered the years from 1994 to 2004. During this time period, the CEC implemented on a continuing basis Articles 10(6), 13, 14, and 15 of the NAAEC, as well sixty-four cooperative initiatives of varying durations. The empirical assessment examined activities under Articles 10(6), 13, 14, and 15, and three cooperative initiatives that spanned the entire time period covered by the assessment. The average duration of all cooperative initiatives implemented during the time period from 1994 to 2004 was 3.4 years. The three cooperative initiatives selected for the empirical assessment had duration of 10 years. *See* Allen, *supra* note 5.

92. Documents and archival records included popular press and non-academic publications, academic publications, governmental publications, CEC publications such as meeting minutes, correspondence, technical reports, annual reports, work plans, resolutions, letters, and unpublished reports, letters, and other documentation provided by interviewees and other stakeholders.

93. Key stakeholder interviews were conducted with individuals who had extensive experience with the work of the CEC. A focused snowball sampling technique was used to identify potential interviewees associated primarily with the mandates or activities listed in Table 1. Initial candidates were identified from published documentation and subsequent candidates were identified from contacts with initial interviewees. A total of 133 interviews were conducted in person or by telephone in either Spanish or English between 2000 and 2003. All interviews were confidential to obtain candid responses and protect the identity of the interviewees. Interviews, when cited herein, are identified using the organizational affiliation (government = "G", CEC = "C", private sector = "P", academia = "A", nongovernmental organization = "N") and nationality of interviewee (Mexican = "MX", United States = "US", Canadian = "CN", and other = "OT), and a chronologically assigned number for the interview: ex. MX-G-25.

94. Survey: Effectiveness of the Commission for Environmental Cooperation [hereinafter CEC Effectiveness Survey] (on file with author). The CEC Effectiveness Survey was an eight page written self-administered opinion survey with 23 questions, distributed via regular postal service and email in 2003. Survey recipients were identified using a probability sample developed from a sample frame of published lists of individuals who participated in work or activities of the CEC. The initial probability sample size was 962; however 267 individuals were excluded from the sample due to lack of reliable contact information or non-availability. The final sample size was 697. Survey responses were anonymous to obtain candid responses and protect respondents' identities. Survey comments, when cited herein, are identified using the nationality of respondent, see *supra* note 93, and a chronologically assigned survey number: ex.: MX243.

95. A large portion of the CEC's work is elaborated or reviewed during CEC events, such as Council, JPAC, or Secretariat public meetings, which serve as a rich source of unpublished comments on the effectiveness of the CEC.

interviewees by organizational affiliation is provided in Table 3.⁹⁶ Table 4 summarizes the distribution of survey recipients by country of residence, and survey respondents (n = 277, response rate = 40 percent) by nationality.⁹⁷ Table 5 provides a summary of the CEC sponsored events attended for the assessment.

Table 2: Focus of Empirical Assessment of Institutional Effectiveness

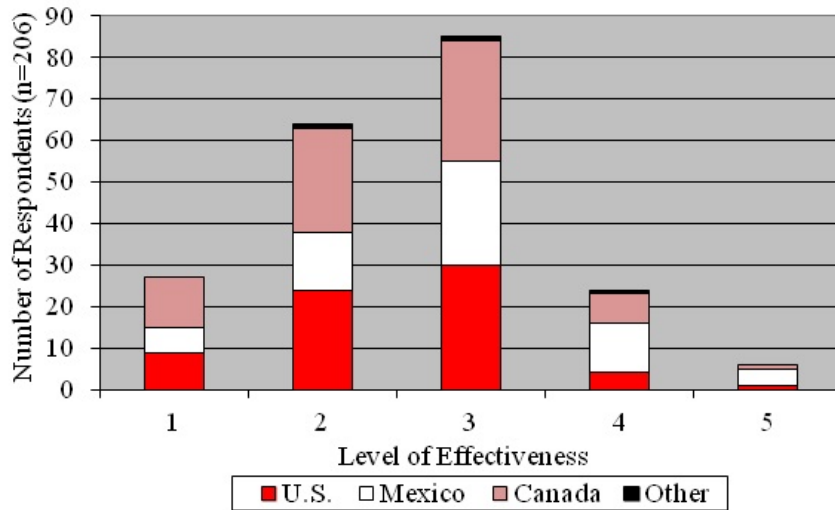


Table 3: Breakdown of Interviewees by Organizational Affiliation

Organizational Affiliation	Number of Interviewees
CEC Staff	22
JPAC, NAC, GAC Members	22
Council Members or Delegates	11
CEC Working Groups	30
Nongovernmental Organizations	19
Other Government Representatives	25
Others	4
Total	133

96. CEC Effectiveness Survey, *supra* note 94, Question 1.

97. CEC Effectiveness Survey, *supra* note 94, Question 2. The nationality of the survey recipient was not known at the time of mailing, only the country of residence. Nationality was self-reported on the survey and is provided only for respondents.

Table 4: Breakdown of Survey Sample by Country of Residence and Respondents by Nationality

Recipient Country of Residence	Number of Surveys by Country of Residence	Percent of Total	Number of Respondents by Nationality	Percent of Total
Mexico	190	27%	81	29.2%
USA	243	35%	95	34.3%
Canada	259	37%	97	35.0%
Switzerland, France, Belgium	5	1%	4	1.5%
Total	697	100%	277	100%

Table 5: CEC Sponsored Events Attended

Event	Location	Date
8 th Regular Session of the CEC Council	Guadalajara, Jalisco, Mexico	June 2001
JPAC Regular Session and Public Workshop on Green Goods and Services	Guadalajara, Jalisco, Mexico	June 2001
9 th Regular Session of the CEC Council	Ottawa, Ontario, Canada	June 2002
JPAC Regular Session	Ottawa, Ontario, Canada	June 2002
Canadian NAC Meeting	Hull, Quebec, Canada	June 2002
CEC Workshop on Transboundary Law Enforcement	Washington, DC, USA	January 2003
CEC Second North American Symposium on Assessing the Environmental Effects of Trade	Mexico City, DF, Mexico	March 2003
JPAC Regular Session and Public Workshop on Chapter 11 of the North American Free Trade Agreement	Mexico City, DF, Mexico	March 2003
SMOC Working Group Public Meeting	Windsor, Ontario, Canada	May 2003
10 th Regular Session of CEC Council	Washington, DC, USA	June 2003
JPAC Regular Session and Joint Public Workshop of the Enforcement Working Group and JPAC on Enforcement Cooperation Issues	Washington, DC, USA	June 2003

VII. EMPIRICAL ASSESSMENT OF RESULTS

The empirical assessment focused on representative activities for each of the major substantive mandates of the CEC (see Table 2). The results of the assessment are organized and discussed in four sections, with each section covering one mandate. The four sections include, integrating trade and environment objectives under NAFTA and supporting the NAFTA FTC, promoting environmental cooperation, undertaking independent reporting, and improving enforcement of environmental laws. First, some background information is provided on the survey respondents and a summary of the survey results related to ranking of CEC principal objectives.

A. Background on Survey Respondents

The 277 individuals who responded to the survey had a variety of organizational affiliations. The largest single segment, comprising around twenty-five percent of the respondents, was affiliated with CEC working groups.⁹⁸ Meanwhile, twenty-one percent of respondents were affiliated with nongovernmental organizations, sixteen percent were affiliated with government, nine percent were affiliated with either the NAC or GAC, eight percent were affiliated with academia, six percent were affiliated with CEC staff, five percent were affiliated with JPAC, and two percent or less were affiliated each with consultants, the CEC Council, international organizations, industry, private citizens, media, and other.⁹⁹

At the time of the survey, respondents ($n = 272$) had been involved with, or followed, the work of the CEC for approximately five years on average¹⁰⁰. Respondents generally obtained information on the CEC from more than one source, with around seventy-three percent obtaining information during meetings, sixty-six percent from publications, and fifty-five percent from person to person contact.¹⁰¹ Around fifty-nine percent of the respondents ($n = 276$) attended CEC meetings occasionally, while thirty-four percent attended meetings frequently; only seven percent of respondents had never attended CEC meetings.¹⁰²

98. CEC Effectiveness Survey, *supra* note 94, Question 1.

99. *Id.*

100. CEC Effectiveness Survey, *supra* note 94, Question 3. Unpaired t-tests for difference of means indicate that there is no significant difference between the mean years of involvement for survey respondents with U.S., Mexican, and Canadian nationalities.

101. CEC Effectiveness Survey, *supra* note 94, Question 4.

102. CEC Effectiveness Survey, *supra* note 94, Question 5.

Around thirty-seven percent of the respondents (n = 271) were interested in all of the work programs of CEC, while fifty-five percent were interested in a few programs and only eight percent were interested in just one program.¹⁰³

B. Overall Ranking of Principal Objectives

Survey respondents ranked in order of importance seven specific objectives of the CEC.¹⁰⁴ Around forty-four percent of the respondents (n = 273) indicated that the most important objective of the CEC was to facilitate voluntary environmental cooperation between the three countries, whereas eighteen percent of the respondents ranked improving effective enforcement of environmental laws and regulations as the most important objective.¹⁰⁵ Around nine percent of the respondents ranked evaluating trade and environment linkages and cooperating with the NAFTA FTC as the most important objectives for the CEC, while eight percent of the respondents ranked improving compatibility of environmental regulations and improving public involvement in development of environmental laws as the most important objective.¹⁰⁶ Only three percent of the respondents ranked the objective to develop a North American constituency and agenda as the most important, and one percent ranked other miscellaneous objectives as most important.¹⁰⁷

C. Enforcement Mandate

Lax enforcement of environmental laws was the principal concern during negotiation of NAFTA, and under the NAAEC there are two institutional mechanisms available to improve the effective enforcement of laws in the three countries: a state-to-state consultation and dispute resolution process¹⁰⁸ and a citizen submission process.¹⁰⁹ Although enforcement of issues has remained a key concern for some stakeholders, the use of these mechanisms has been quite mixed. The citizen submission process has been used on a limited basis while the state-to-state dispute resolution process has never been used. The following is an assessment of the effectiveness of these processes for improving the enforcement of environmental laws.

103. CEC Effectiveness Survey, *supra* note 94, Question 6.

104. CEC Effectiveness Survey, *supra* note 94, Question 7.

105. CEC Effectiveness Survey, *supra* note 94, Question 7.

106. *Id.*

107. *Id.*

108. NAAEC, *supra* note 2, arts. 22–36.

109. NAAEC, *supra* note 2, arts. 14, 15.

*1. State-to-State Consultation and Dispute
Resolution Process*

The state-to-state consultation and dispute resolution process was the most contentious aspect of the NAAEC, and symbolically it was intended to provide the “teeth” of the CEC to remedy the lax enforcement. Overall, the process allows one country to submit a claim against another for a persistent pattern of failure to effectively enforce its domestic environmental laws in a manner that affects trade between the countries, with ultimate recourse to fines or snap-back tariffs. The threat of sanctions was envisioned to be a powerful incentive for improving enforcement, but a measure that would only be used as a last resort.

To date, the consultation and dispute resolution process has never been initiated by any of the countries, which presents a challenge for evaluating its effectiveness. On the one hand, it is possible that the process has not been used because the countries have been effectively enforcing their environmental laws since NAFTA entered into effect, either as a matter of standard practice or due to the threat of potential sanctions under this process. On the other hand, it is possible that the countries have not been effectively enforcing their environmental laws, but have not used the process because they do not have the capacity to do so or because they do not want to criticize each other's domestic enforcement efforts through a formal dispute resolution process. While it is possible to formulate some conjectures for each of the above scenarios, there is strong anecdotal evidence that suggests the countries do not want to criticize each other's enforcement efforts, and have no intention of ever using the process regardless of levels of non-enforcement.

In general, there are a number of actions that should have been undertaken to ensure the process would be available if needed, since the potential always exists for it to be used one day. These actions include establishing a roster of panelists and developing “Model Rules of Procedure” for administration of the process.¹¹⁰ When the CEC was established in 1993, the U.S. government committed to develop Model Rules of Procedure¹¹¹ and in 1995 the Secretariat commissioned the Bar Associations of the three countries to jointly draft a set of Model Rules.¹¹² The draft rules, however, were never adopted by the

110. NAAEC, *supra* note 2, arts. 25, 28.

111. *See, e.g., North American Free-Trade Agreement (NAFTA) and Supplemental Agreements to the NAFTA: Hearings Before the H.R. Comm. on Ways and Means*, 103rd Cong. 1 (1993) (statement of Carol M. Browner, Administrator, U.S. Environmental Protection Agency); This commitment was later formalized in Exec. Order No. 12,915, 59 Fed. Reg. 25775 (May 13, 1994).

112. Jay M. Vogelsson, *Dispute Resolution Under the North American Agreement on Environmental Cooperation*, 30 INT'L LAW. 198, 200 (1996).

governments. The U.S. government attempted again in the late 1990s to develop Model Rules¹¹³, but these efforts were not supported by either Mexico or Canada. At that time, very preliminary rules were drafted but still have never been finalized.¹¹⁴

In addition to Rules of Procedure, the governments are required to “establish and maintain” a roster of up to forty-five individuals to serve as panelists for an arbitral panel for the process.¹¹⁵ To date, the three governments have never developed a roster of panelists.¹¹⁶ In addition, the three governments may be subject to a monetary penalty for failure to enforce their laws.¹¹⁷ In the U.S., federal agencies conducted preliminary discussions on how the fines under this article would be paid, but no agreement has ever been reached.¹¹⁸ Overall, the U.S. has led efforts to operationalize the dispute resolution process, but these efforts have been minimal and appear to have been undertaken to maintain an aura of credibility for the process.¹¹⁹

According to officials inside and outside of the governments, the process has not been initiated because the countries do not want to publicly criticize each other’s domestic enforcement activities. The lack of action by the governments to ensure the process is available for use fifteen years after the CEC was established indicates that they probably do not envision using the process anytime soon, regardless of the levels of non-enforcement in each country. As some observers note, it appears that the governments have entered into an implicit mutual non-aggression pact and they will never initiate the process under their own

113. *See, e.g.*, CEC, SUMMARY RECORD, SESSION 98-07 OF THE COUNCIL (Sept. 3-4, 1998), available at http://cce.cec.org/Storage/26/1692_Council_Session_98-07.pdf; CEC, SUMMARY RECORD, SESSION 99-09 OF ALTERNATIVE REPRESENTATIVES (1999) (on file with author).

114. Freedom of Information Act Request HQ-RIN-00457-04 [hereinafter FOIA 00457-04] (on file with author); *see also* HUFBAUER, JONES, & OREJAS, *supra* note 59; Vogelson, *supra* note 112; John H. Knox, *A New Approach to Compliance with International Law: The Submissions Procedure of the NAFTA Environmental Commission*, 28 *ECOLOGY L.Q.* (2001).

115. NAAEC, *supra* note 2, art. 25.

116. FOIA 00457-04, *supra* note 114.

117. NAAEC, *supra* note 2, art. 34.

118. U.S. GENERAL ACCOUNTING OFFICE, GAO-01-933, NORTH AMERICAN FREE TRADE AGREEMENT: U.S. EXPERIENCE WITH ENVIRONMENT, LABOR, AND INVESTMENT DISPUTE SETTLEMENT CASES 49 (2001).

119. Efforts by the U.S. Government to establish Model Rules of Procedure appear to be driven in part by the interest of particular individuals within the U.S. Environmental Protection Agency to maintain the credibility of the process, and in part by pressure from the environmental groups.

volition.¹²⁰ As such, it is unlikely that the process will ever have any effect on enforcement levels in the countries.

2. *Citizen Submission Process*

The citizen submission process is the other mechanism established to improve enforcement of environmental laws. This process is administered by the Secretariat and allows for private parties¹²¹ to submit petitions alleging that one of the governments is failing to effectively enforce its laws. The Secretariat reviews the submissions, determines whether a factual record is warranted and prepares and releases a factual record with approval of the Council. The factual record presents only the facts associated with the enforcement issue and is intended to serve as a spotlight, or sunshine, remedy that focuses public scrutiny on particular enforcement activities by the governments and thereby generate pressure for remedial action. Within this process, the Secretariat exercises a modest amount of independent decision-making to examine and document domestic environmental enforcement practices in the three countries. Although the process is considered to be one of the most innovative features of the CEC, it has not been extensively used over the past fifteen years.¹²²

a. Implementation of the Process

The implementation of the citizen submission process, from a budgetary standpoint, has not historically been a major component of the work of the CEC. Despite its limited use, however, the submission process has received more attention from the Council, JPAC, and other stakeholders than any other aspect of the CEC. The reason for this high level of attention has been the ongoing controversy associated with the implementation of the process, due in general, to differences in interpretation of the NAAEC provisions (Articles 14 and 15) that have arisen repeatedly during the past fifteen years.¹²³

120. Schorr, *supra* note 86, at 231; HUFBAUER ET AL., *supra* note 61, at 20.

121. Private parties include any scientific, professional, business, non-profit, or public interest organization or association that is neither affiliated with nor under the direction of a government; NAAEC, *supra* note 2, art. 45 § 1.

122. Given the importance of law enforcement during the NAFTA negotiations, some negotiators of the NAAEC anticipated that the CEC would receive hundreds, if not thousands, of citizen submissions annually. As of the end of 2010, the Secretariat had received 76 submissions on enforcement matters and had prepared 16 factual records.

123. See generally ENVTL. LAW INST., FINAL REPORT: ISSUES RELATED TO ARTICLES 14 AND 15 OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (2003); Christopher Tollefson, *Stormy Weather: The Recent History of the Citizen Submission North American Agreement on Environmental Cooperation*, in

When the three countries negotiated the citizen submission process provisions of the NAAEC in 1993, they could not agree on the respective decision-making authorities, responsibilities, and levels of discretion of the governments and the Secretariat¹²⁴ in the implementation of the process.¹²⁵ The result was ambiguous language that provided only a general outline, and differences in interpretation of these provisions emerged almost immediately upon implementation of the process in 1995.¹²⁶ To resolve these differences, the Secretariat and the three governments sought to develop more detailed guidelines for the process, even though guidelines were not required under the NAAEC.¹²⁷

The Secretariat first developed draft guidelines in 1995, but these were never adopted by the governments. The governments then crafted the guidelines that are currently used to administer the process,¹²⁸ however these guidelines still left many aspects of the process open to interpretation because governments could not reach consensus amongst themselves. During the course of implementing the process since 1995, the Secretariat has taken the initiative to interpret aspects of Articles 14 and 15 left unclear by the guidelines, but some of the governments have strongly disagreed with these actions.

The governments, in turn, have sought several times to resolve some of the interpretative issues through modifications to the guidelines. These efforts have been perceived as attempts to undermine the independence of the Secretariat and the credibility of the process.¹²⁹ The

LINKING TRADE, *supra* note 75, at 153; Serena Wilson, *Article 14-15 of the North American Agreement on Environmental Cooperation: Intent of the Founders*, in LINKING TRADE, *supra* note 75, at 187; Paul S. Kibel, *Awkward Evolution: Citizen Enforcement at the North American Environmental Commission*, 32 ENV'L. LAW REP. 10769 (2002); David J. Blair, *The CEC's Citizen Submission Process: Still a Model for Reconciling Trade and the Environment?*, 12 J. ENV'T & DEV. 295 (2003); Geoff Garver, *Tooth Decay*, 25 ENV'TL FORUM 34 (2008); Chris Wold et al., *The Inadequacy of the Citizen Submission Process of Articles 14 and 15 of the North American Agreement on Environmental Cooperation*, 26 LOY. L.A. INT'L & COMP. L. REV. 415 (2004).

124. The Parties are responsible for addressing questions and differences that may arise between the Parties regarding the interpretation and application of the NAAEC; NAAEC, *supra* note 2, art.10 § 1(d).

125. Wilson, *supra* note 123, at 188; *see also* Tollefson, *supra* note 123.

126. Wilson, *supra* note 123, at 188; Tollefson, *supra* note 123, at 162; *see also* MARC PAQUIN, ET AL., UNISFÉRA INTERNATIONAL CENTRE, THE ARTICLES 14 & 15 CITIZEN SUBMISSION PROCESS OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION: DISCUSSION PAPER (2003), *available at* http://unisfera.org/IMG/pdf/Unisfera_-_NACEC_14-15_Process.pdf.

127. Wilson, *supra* note 123, at 188.

128. CEC BRINGING THE FACTS TO LIGHT, *supra* note 73.

129. *See, e.g.*, Abel, *supra* note 61; ENVTL. LAW INST., *supra* note 123; Wilson, *supra* note 123; Tollefson, *supra* note 123; Kibel, *supra* note 123; David L. Markell, *The*

governments' proposed modifications to the guidelines in 1998, 1999, and 2000, were strongly opposed by environmental groups, and, as a result, only minor changes were adopted.¹³⁰ Overall, there have been numerous disagreements between the governments and the Secretariat over interpretation of the guidelines and Articles 14 and 15, and the implementation of the process.

Some of the specific interpretative issues that have arisen include, whether the Council has authority to narrow the scope of factual records or to determine what constitutes sufficient information to allow the Secretariat to review the submission, or whether the Secretariat has the authority to determine the process used to gather information for a factual record or to release information obtained during preparation of a factual records to the public without Council approval.¹³¹ Closely related to the interpretative issues, have been controversies over the actual implementation of the process, including government actions, to delay release of information, selectively disclose information, and unduly exercise claims of confidentiality to prevent full disclosure as well as the Secretariat actions to provide comments that resemble recommendations or conclusions in the factual records.¹³²

Notwithstanding the controversies surrounding implementation of the process, the Secretariat has been perceived as providing sound legal reasoning for accepting or rejecting a citizen submission.¹³³ At the same time, however, the process has been frequently criticized for being lethargic, extremely time consuming, lacking transparency, overly legalistic, and at odds with the cooperative mandates of the CEC.¹³⁴ The

CEC Citizen Submission Process: Off Course?, in GREENING NAFTA, *supra* note 54, at 275; Wold et al., *supra* note 123.

130. ENVTL LAW INST., *supra* note 123, at 29-33; PAQUIN, ET AL., *supra* note 126, at 6-8; Tollefson, *supra* note 123, at 153-154; Wilson, *supra* note 123, at 189-90.

131. *See generally* ENVTL LAW INST., *supra* note 123; Tollefson, *supra* note 123.

132. *See generally* ENVTL. LAW INST., *supra* note 123; CEC JOINT PUBLIC ADVISORY COMMITTEE, LESSONS LEARNED, CITIZEN SUBMISSIONS UNDER ARTICLES 14 AND 15 OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (2001) [hereinafter CEC ARTICLE 14 AND 15 LESSONS LEARNED]; Graubart, *supra* note 79; Tollefson, *supra* note 123.

133. *See generally* FOUR-YEAR REVIEW, *supra* note 43; JOHNSON ET AL., *supra* note 47; Knox, *supra* note 114; Beatriz Bugada, *Is NAFTA Up to Its Green Expectations? Effective Law Enforcement under the North American Agreement on Environmental Cooperation*, 32 U. RICH. L. REV. 1591, 1615 (1999); David L. Markell, *The Commission for Environmental Cooperation's Citizen Submission Process*, 12 GEO. INT'L ENVTL. L. REV. 545 (2000); Raymond MacCallum, *Evaluating the Citizen Submission Procedure Under the North American Agreement on Environmental Cooperation*, 8 COLO. J. INT'L L. & POL'Y 395 (1997).

134. *See generally* Kibel, *supra* note 123; Wilson, *supra* note 123; Victor Lichtinger, *NAFTA and the Environment: Five Years Later*, in FREE TRADE, *supra* note

process is also perceived to be inaccessible to grassroots organizations, particularly in Mexico, which lack legal expertise and access to the Internet to benefit from information available on the CEC website. That process, to date, has been used most often by larger, relatively well-funded non-governmental organizations (NGOs) who have legal staffs to craft detailed submittals.¹³⁵

b. Factual Records – Substance and Outcomes

As the end of 2010, sixteen citizen submissions¹³⁶ had wielded their way through the entire submission process and resulted in the completion of a publicly released factual record, but there has been practically no empirical research examining the impact that these factual records have had on enforcement practices in the three countries.¹³⁷ The empirical assessment is examined in some detail in two factual records, the Metales y Derivados¹³⁸ and BC Hydro,¹³⁹ and on a more limited basis, the Migratory Bird¹⁴⁰ factual record. Process tracing is used to assess the effectiveness of the citizen submission process to improve the enforcement of specific environmental laws cited in the citizen submissions. This is accomplished by evaluating whether or not the governments made any substantial modifications in their behavior as a result of the preparation and publication of a factual record by the CEC Secretariat.

i. BC Hydro Factual Record (Canada)

The BC Hydro submission pertained to the failure of Canada to enforce its *Fisheries Act*¹⁴¹ against hydroelectric facilities owned and operated by BC Hydro.¹⁴² This submission was filed jointly by several

86, at 222-23; Margaret Wilder, *Border Farmers, Water Contamination, and the NAAEC Environmental Side Accord to NAFTA*, 40 NAT. RESOURCES J. 873 (2000).

135. Wilder, *supra* note 134, at 892.

136. Of the sixteen factual records, one record was for enforcement issues in the U.S., seven records were for issues in Mexico, and eight records were for issues in Canada. The length of time required to process these submissions has ranged from twenty-one months to eighty-two months, with an average time-period of fifty-three months or about four years and four months.

137. Tollefson, *supra* note 123, at 168; PAQUIN, ET AL., *supra* note 126, at 13.

138. CEC METALES FACTUAL RECORD, *supra* note 76.

139. CEC BC HYDRO FACTUAL RECORD, *supra* note 78.

140. CEC, FINAL FACTUAL RECORD FOR SUBMISSION SEM-99-002 (MIGRATORY BIRDS) (2003) [hereinafter CEC MIGRATORY BIRDS FACTUAL RECORD].

141. Fisheries Act, R.S.C. ch. F-14 (1985) [hereinafter Fisheries Act].

142. CEC BC HYDRO FACTUAL RECORD, *supra* note 78. The Secretariat was directed by the Council to focus the factual record on dams located on the Bridge River; CEC, C/C.01/98-00/RES/03/REV.3, BC HYDRO – COUNCIL RESOLUTION 98-07

nongovernmental organizations in the U.S. and Canada¹⁴³ in 1997. The submission alleged, in particular, that the Canadian Department of Fisheries and Oceans ("DFO") had failed to enforce Section 35(1) of the *Fisheries Act* that prohibits harmful alteration, disruption, or destruction of fish habitat.¹⁴⁴ According to the submission, fish habitat, or around, the hydroelectric facilities was adversely affected by the reduced water flows, rapid flow fluctuations, altered water quality, fish entrainment, and reservoir drawdown caused by operation of the facilities, yet the DFO had issued only two charges against BC Hydro since 1990.¹⁴⁵

The BC Hydro factual record¹⁴⁶ examined non-compliance activities and related adverse impacts on fish habitat at six BC Hydro hydroelectric facilities, the enforcement measures undertaken by DFO to address the impacts, and the effectiveness of these measures to prevent or mitigate harm to fish habitat in compliance with the *Fisheries Act*. In its response to the submission, Canada acknowledged that the operation of BC Hydro facilities resulted in violations of the *Fisheries Act*, but it contended that the government was still effectively enforcing the law by using a range of enforcement and compliance strategies, including new projects, emergency operations, regional technical committees, a water use planning process ("WUPP"), water quality guidelines, and prosecutions to mitigate the impacts to fish habitat or to enhance the habitat.¹⁴⁷

Overall, the factual record provided a general discussion of the actual and potential impacts of hydroelectric facility operation on fish habitat, as well as the enforcement and compliance strategies employed

(1998).

143. British Columbia Aboriginal Fisheries Commission, British Columbia Wildlife Federation, Trail Wildlife Association, Steelhead Society, Trout Unlimited (Spokane Chapter), Sierra Club (US), Pacific Coast Federation of Fishermen's Association, and Institute of Fisheries Resources represented by Sierra Club Legal Defense Fund, Sierra Legal Defense Fund; CEC BC HYDRO FACTUAL RECORD, *supra* note 78.

144. Fisheries Act, *supra* note 141, §35(1): "No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat." The *Fisheries Act* is the principal federal law for regulating Canadian fisheries and it applies to fish habitat on all public, private, or aboriginal lands in Canada. Hydroelectric facilities, to the extent that they impact fish habitat, are subject to regulation under this law.

145. CEC BC HYDRO FACTUAL RECORD, *supra* note 78, at 6.

146. The Secretariat conducted a fairly elaborate process for gathering information for this factual record, which included establishing an Expert Group comprised of recognized experts on fish habitat issues, dam operations, and compliance and enforcement to independently analyze data for the factual record, and conducting public workshops with provincial authorities, the nongovernmental organizations that filed the submission, and the federal government. However, the latter refused to participate in the workshops; *see* CEC BC HYDRO FACTUAL RECORD, *supra* note 78, at 18-26.

147. CEC BC HYDRO FACTUAL RECORD, *supra* note 78, at 7-17.

by DFO for mitigating impacts to fish habitat. The factual record did not provide data on the actual impacts of these enforcement actions, which remediated impacts to fish habitat, primarily because these data did not exist.¹⁴⁸ Anecdotally, the factual record indicated that some enforcement actions, such as emergency response procedures, did positively impact fish habitat, but for other enforcement actions, such as the WUPP, there was insufficient information to ascertain their effectiveness.¹⁴⁹ The lack of data was cited as a major constraint in preparing the factual record and it was noted that Canada was not forthcoming in providing data as requested by the Secretariat and Expert Group.¹⁵⁰

It took over three years for the CEC to review the BC Hydro submission and prepare and publicly release the BC Hydro factual record. During this time period, the media attention on the investigation waxed and waned. Overall, most of the government officials and representatives from the submitting organizations involved with this factual record, felt that there was relatively minimal press coverage of the investigation¹⁵¹ and some of the coverage focused more on Canada's refusal to participate in public workshops organized by the Secretariat rather than the substantive outcome of the citizen submission process.¹⁵² Following release of the factual record, two of the original eight submitting organizations continued to follow the fisheries enforcement issues, primarily through participation in the WUPP, but these groups made limited use of the factual record. The nongovernmental organizations from the U.S. ceased to participate and follow the CEC process altogether before the factual record was completed.

148. See generally CEC BC HYDRO FACTUAL RECORD, *supra* note 78.

149. CEC BC HYDRO FACTUAL RECORD, *supra* note 78, at 28, 76.

150. CEC BC HYDRO FACTUAL RECORD, *supra* note 78, at 25, 53, 99.

151. Craig McInnes, *Protest Enrages BC Minister: Activists Seek NAFTA Censure of Power Agency for Harming Fish*, GLOBE & MAIL, (TORONTO), Apr 3, 1997, at A4; Anne Mellroy, *Canada May Face NAFTA Probe: Fish Habitat Laws Under Microscope*, GLOBE & MAIL, (TORONTO), May 21, 1998, at A1; *BC Hydro Dams Probed by NAFTA Agency*, INT'L WATER POWER & DAM, CONSTR., August 10, 1998, available at <http://www.waterpowermagazine.com/story.asp?storyCode=2000548>; Andrew Duffy & Mark Brown, *Canada's Fish Habitat Protection Criticized: A NAFTA Environmental Panel Says the 'Ad-Hoc' Approach Doesn't Properly Oversee BC Hydro*, VANCOUVER SUN, June 13, 2000, at A6.

152. Paul Knox, *Canada Refuses Meeting Before NAFTA Panel: Activists Say the Federal Government is Consistent in Seeking to Hobble Public-Complaints Process*, GLOBE & MAIL, (TORONTO), Apr. 28, 2000, at A11; *Sierra Fund Charges Canada Ignores NAFTA Hydroelectric Environmental Rules*, UTIL. ENV'T REP., Mar. 12, 1999, at 13; Heather Scoffield, *Ottawa Stifling Hearings, Groups Say. Environmentalists Claim NAFTA Side Agreement Undermined by Secrecy in BC Hydro Case*, GLOBE & MAIL, (TORONTO), Mar. 8, 1999, at B3.

With respect to the impact of the factual record, most of the interviewees felt that the factual record did not have any significant impact on enforcement by DFO of the *Fisheries Act* vis-à-vis the hydroelectric facilities.¹⁵³ A representative from one of the submittal organizations contended that the factual record was a factor in spurring Canada to institute the WUPP,¹⁵⁴ but the process had been initiated a year or more before the submission was made to the CEC.¹⁵⁵ So, rather than serve as an impetus for establishing the WUPP, the factual record served to strengthen the provincial and federal governments' commitment to the WUPP and encourage them to take more ownership of it. The factual record, however, did not substantively change the WUPP.

While the factual record was being prepared by the CEC, the provincial government of British Columbia committed to provide funding for the WUPP. A total of \$25 million was allocated to develop water use plans for the hydroelectric facilities and approximately \$50 million per year was allocated to compensate BC Hydro for revenue losses associated with operational changes under the plans.¹⁵⁶ This funding commitment represented a considerable increase over the initial funding level proposed for the system operations fund of \$3.5 million per year. Based on the information available from this assessment, however, it was not possible to determine what influence the factual record had on securing this level of funding. In addition, the Water Use Plan for the Bridge River¹⁵⁷ had not yet been implemented by the end of 2010, and it does not provide any information on funding.

Considering the broader context of fisheries issues in British Columbia, the preparation of the BC Hydro factual record coincided with already ongoing efforts of both the federal and provincial governments to address many long-standing non-power impacts associated with hydroelectric facilities in British Columbia, such as impacts to fisheries. Historically, the hydroelectric facilities had operated with little regard for their social or environmental impacts. However, in the 1980s and early

153. Interview Numbers CN-P-140 (May 27, 2003); CN-N-130 (May 16, 2003); CN-G-147 (May 13, 2003); CN-G-133 (May 20, 2003); CN-G-149 (Jun. 16, 2003); CN-N-88 (Mar. 8, 2003); CN-G-137 (May 22, 2003); CN-G-138 (May 26, 2003); CN-G-134 (May 22, 2003); CN-P-97 (Mar. 7, 2003).

154. See, e.g., Graubart, *supra* note 79, at 444.

155. CEC, A14/SEM/97-001/05/RSP, BC HYDRO – PARTY RESPONSE X (1997) available at http://www.cec.org/Storage/87/8430_97-1-RSP-E.PDF.

156. BC Hydro, *Financing Water Use Plans, Background Paper* (on file with author).

157. BRIDGE RIVER POWER DEVELOPMENT WATER USE PLAN (March 17, 2011) (on file with author).

1990s, demands from environmental groups and First Nations, coupled with litigation and technical studies examining the operation of the hydroelectric facilities, generated pressure on the federal and provincial governments to address many of the impacts.

In response to these demands, the DFO began to pursue enforcement actions in the early 1990s, and BC Hydro subsequently proposed the WUPP, which was intended to address all non-power impacts, and not just those associated with fisheries. By the time the factual record was prepared in the late 1990s, many of the enforcement issues were already being addressed and the WUPP was subsequently implemented by BC Hydro for all of its hydroelectric facilities. Thus, the factual record focused on an enforcement issue that already was receiving considerable attention, so its utility as a spotlight remedy was limited. According to one government official, in hindsight the factual record came along a couple of years too late.

Several of the government officials directly involved in developing the governments' response to the Secretariat felt that, overall, the citizen submission process was very politicized. For example, the DFO staff in British Columbia had wanted to provide considerable technical information to the Secretariat and Expert Group for the factual record, to ensure the record included a complete picture of the enforcement situation for BC Hydro. However, Environment Canada and the Canadian Department of Foreign Affairs and International Trade in Ottawa severely reduced and sanitized the information that was provided. Several government officials also felt the process, was overall, time-consuming and frustrating, if not outright abusive. Moreover, they did not view the final product as very factual or complete; in their opinion, a lot of information in the factual record was professional judgment or anecdotal.

ii. Metales y Derivados Factual Record (Mexico)

The Metales y Derivados factual record examined the failure of Mexico to effectively enforce provisions of the *Ley General del Equilibrio Ecológico y la Protección al Ambiente*¹⁵⁸ (“LGEEPA”) at the

158. *Ley General del Equilibrio Ecológico y la Protección al Ambiente* [General Law on Ecological Balance and Environmental Protection], Diario Oficial de la Federación [D.O.] (Jan. 28, 1988) (Mex.) [hereinafter LGEEPA]. The LGEEPA is the principal federal environmental law governing pollution control, natural resource conservation, environmental impact and risk assessment, and ecological zoning and sanctions. At the time the factual record was prepared, Mexico did not have a law that covered the clean-up of contaminated sites such as Metales y Derivados, and thus the provisions of the LGEEPA governed.

Metales y Derivados industrial facility on the outskirts of Tijuana, Baja California.¹⁵⁹ Metales y Derivados is a former lead smelting operation that was permanently shut down by the Mexican government in 1994, after years of noncompliance with environmental laws. The owner of the facility fled to San Diego, California, in 1995 to avoid arrest, leaving the facility with between 6000 and 7000 tons of lead slag and other hazardous wastes on-site.¹⁶⁰ In 1998, two nongovernmental organizations¹⁶¹ filed a citizen submission with the CEC, citing the failure of the government to enforce Articles 170 and 134 of the LGEEPA; Article 170 sets forth requirements to protect the public health and environment from imminent risk while Article 134 sets forth requirements to control or prevent soil contamination.¹⁶² A factual record was prepared and publicly released in February 2002.¹⁶³

The Metales y Derivados factual record documented existing conditions of the site and vicinity, measures taken by Mexico to prevent contamination at the site and reduce risk to the public health, and the potential health effects of the contamination.¹⁶⁴ Overall, the factual record noted that the site was contaminated with heavy metals and posed a risk to the public yet the government had not taken sufficient measures to prevent access to the site, to prevent dispersal of the contamination on or offsite, to limit exposure of the public to the contamination, or to restore the site to a condition consistent with local zoning. The factual record also noted that SEMARNAT was not forthcoming in providing information for preparation of the factual record.¹⁶⁵

During the almost three and a half years it took for the CEC to review the Metales y Derivados submission and prepare and publicly release the factual record, the CEC investigation of the enforcement issues received a modest level of press coverage in the U.S. and

159. *See generally* CEC METALES FACTUAL RECORD, *supra* note 76.

160. CEC, A14/SEM/98-007-01-SUB, PETITION BEFORE THE COMMISSION FOR ENVIRONMENTAL COOPERATION, UNDER ARTICLES 13, 14, AND 15 OF THE NORTH AMERICAN AGREEMENT FOR ENVIRONMENTAL COOPERATION (1998) *available at* <http://www.cec.org/files/pdf/sem/98-7-SUB-OE.pdf> [hereinafter CEC SUB 98-007-01].

161. Environmental Health Coalition (U.S.-based) and Comité Ciudadano Pro-Restauración del Cañon del Padre (Mexico-based). The Comité Ciudadano is a community group comprised of representatives from the Colonia Chilpancingo, located adjacent to the Metales y Derivados site. The Comité Ciudadano subsequently changed its name to Colectivo Chilpancingo Pro-Justicia Ambiental [hereinafter Colectivo Chilpancingo].

162. CEC SUB 98-007-01, *supra* note 160.

163. CEC, C/C.01/02-01/RES/01/FINAL, COUNCIL RESOLUTION 02-01 (2002).

164. *See generally* CEC METALES FACTUAL RECORD, *supra* note 76.

165. CEC METALES FACTUAL RECORD, *supra* note 76, at 18.

Mexico.¹⁶⁶ After the factual record was released in 2002, the case continued to receive press coverage,¹⁶⁷ although it appears that the attention was due mostly to the strong media campaign and community organizing efforts conducted by the submitting organizations.¹⁶⁸

The groups used the CEC submissions process and factual record to educate the community located adjacent to the Metales site, Colonia Chilpancingo, and to organize numerous activities to keep the Metales case in the news, such as letter writing campaigns to the President and other high ranking Mexican officials, demonstrations and marches on the U.S.-based parent company of Metales, and all-night vigils outside La Procuraduría Federal de Protección al Ambiente (“PROFEPA”).¹⁶⁹ As a result of these activities, the groups were able to focus more attention on the contamination and lack of enforcement at the Metales y Derivados site than it otherwise probably would have received with only the release of the factual record.

After the Metales y Derivados submission was made in 1998, the government of Mexico, in conjunction with the U.S. government, undertook a number of steps to address the remediation of contaminated

166. Marc Lifsher, *Groups Use NAFTA in Move to Clean Up Border Plan*, WALL ST. J., Oct. 21, 1998, at CA1; Edward Worden, *Shuttered Smelter Tests NAFTA*, AM. METAL MARKET, Aug. 18, 1999; Ben Fox, *NAFTA Falls Short on Environment: Observer Say a US Company Operating a Lead Recycling Plant in Mexico Leaves Behind a Legacy of Pollution*, PORTLAND OREGONIAN, Apr. 30, 2000; Joe Cantlupe, *Agency to Probe Industrial Waste Site in Tijuana*, SAN DIEGO UNION-TRIB., May 18, 2000, at B1.

167. Joe Cantlupe, *Plan Proposed to Clean Up Toxic Mess; Plant Owner Faces Arrest for Violations in Mexico*, SAN DIEGO UNION-TRIB., Dec. 9, 2002, at B1; Kevin Sullivan, *A Toxic Legacy on the Mexican Border; Abandoned U.S.-Owned Smelter in Tijuana Blamed for Birth Defects, Health Ailments*, WASH. POST, Feb. 16, 2003, at A17; Sandra Dibble, *Grant Targets Abandoned Tijuana Lead Smelter: EPA Funds for Site Cleanup, Restoration*, SAN DIEGO UNION-TRIB., Feb. 27, 2004, at B3; Joe Cantlupe & Sandra Dibble, *Cleanup Approaches for Abandoned Smelter: Mexico to Sign Agreement on Long-awaited Project*, SAN DIEGO UNION-TRIB., June 23, 2004, at B1; Joe Cantlupe, *Cleanup of Toxic Waste at Tijuana Site is Praised*, SAN DIEGO UNION-TRIB., Aug. 6, 2005, at B2; Sandra Dibble, *Former Toxic Waste Dump to Become Public Park*, SAN DIEGO UNION-TRIB., Aug. 16, 2007, at B2.

168. Amelia Simpson, *Warren County's Legacy for Mexico's Border Maquiladoras*, 1 GOLDEN GATE ENVTL. L.J. 153, 169 (2007); David V. Carruthers, *The Globalization of Environmental Justice: Lessons from the U.S.-Mexico Border*, 21 SOC'Y & NAT. RESOURCES 556, 558 (2008).

169. La Procuraduría Federal de Protección al Ambiente is the Mexican attorney general for environmental laws; CEC, Salud Ambiental, Tomando Acción en Colonia Chilpancingo: An Environmental Education and Empowerment Training Program (2001) (on file with author); see also H.G. Meyer, *Protesters March on Alleged Polluters; S.D. Firm Accused of Tijuana Abuses*, SAN DIEGO UNION-TRIB., July 18, 2001, at B2; Simpson, *supra* note 168, at 170-172.

sites in general and the Metales y Derivados site in particular. Numerous interviewees felt that some of these actions may have been due to the increased scrutiny of the Metales case from the CEC citizen submission process. For example, in early 2000, the U.S. and Mexico developed a joint policy to promote voluntary remediation of brownfield sites in the border region¹⁷⁰ and the development of this policy was inspired in part by the Metales y Derivados case.¹⁷¹ In 2002, the U.S. and Mexico incorporated a commitment into the U.S. – Mexico Border 2012 Plan to develop a policy for cleanup of abandoned waste sites¹⁷² in the border region and this action was also inspired in part by the Metales y Derivados case. In 2004, the Secretaría del Medio Ambiente y Recursos Naturales (“SEMARNAT”) identified the Metales y Derivados site as its top priority for cleanup within five years, with a commitment of initial funding of about \$700,000, including \$85,000 from the U.S.¹⁷³ and the site was eventually remediated in 2008.¹⁷⁴ Mexico also enacted legislation to regulate and remediate contaminated sites such as Metales y Derivados site¹⁷⁵ in early 2004.

Although the preparation and release of the Metales y Derivados factual record coincided with these various actions, it is difficult to ascertain the real impact that this process had on the governments’ behavior. Considering the broader context, the Environmental Health Coalition and Colonia Chilpancingo had already been actively seeking cleanup of the Metales site before filing the CEC submission¹⁷⁶ and they

170. CEC METALES FACTUAL RECORD, *supra* note 76; EPA/SEMARNAP Joint Policy Statement on the Remediation and Redevelopment of Contaminated Properties in the U.S./Mexico Border Area (May 18, 2000) (on file with author).

171. Lawrence Sperling, Fax Transmittal to Jose Luis Samaniego on upcoming environmental events in Mexico City (Feb. 18, 2000) (on file with author).

172. US EPA, BORDER 2012: U.S.-MEXICO ENVIRONMENTAL PROGRAM (2002) [hereinafter BORDER 2012]. Goal 3, Objective 4: “By 2004, develop a binational cleanup, reuse, and revitalization policy to address abandoned waste sites along the border. By 2007, this policy will be applied at least once in each Workgroup region.”

173. Dibble, *supra* note 167; Cantlupe & Dibble, *supra* note 167; Press Release, Environmental Health Coalition, Government funds Tijuana site final cleanup (Aug. 14, 2007), http://www.environmentalhealth.org/PressReleases/PublicReleases_Archive/PR_Metales_8_14_07.htm.

174. Press Release, U.S. Environmental Protection Agency, U.S. EPA, Mexican environmental agencies celebrate cleanup of former abandoned lead smelter (Jan. 28, 2009), <http://yosemite.epa.gov/opa/admpress.nsf/0/F2FBFB057587A0418525754C00763C42>.

175. Ley General para la Prevención y Gestión Integral de los Residuos [Law for the Prevention and Integral Management of Wastes], Diario Oficial de la Federación [D.O.], 8 de octubre, 2003 (Mex).

176. Residents from Colonia Chilpancingo had submitted complaints about possible

continued to do so after the factual record was completed. Moreover, Mexico had been working to address the cleanup of contaminated sites since the early 1990s. Mexico had initiated a Program for Identification and Attention to Contaminated Sites with Hazardous Wastes in 1995, completed an inventory of sites, began characterizing the highest priority sites starting in 1997, and initiated cleanup at some sites within the country.¹⁷⁷

The U.S. and Mexican governments had also been working to address cleanup of industrial sites along the border before the Metales y Derivados submission. Contaminated sites, therefore, were already receiving attention in Mexico before the CEC submission on Metales was made. The value-added from the process appears to be that the factual record both provided some new information on the contamination problem at the Metales site and substantiated the claims of the community regarding the nature and severity of contamination and the potential health risk. The site was tested and confirmed to be contaminated, although as a practical matter, this was never really in doubt. Through this substantiation, the credibility of the Environmental Health Coalition and Colectivo Chilpancingo was enhanced, thereby increasing the validity of their claims.

iii. Migratory Birds Factual Record (U.S.)

A coalition of nine nongovernmental organizations¹⁷⁸ from the U.S., Mexico, and Canada alleged in the Migratory Bird submission that the U.S. was failing to effectively enforce section 703 of the *Migratory Bird Treaty Act*¹⁷⁹ (“MBTA”) against logging operations on federal and non-

environmental and health risks from operations of the Metales y Derivados facility to the SEMARNAT since it began operation in 1972; Metales y Derivados, New Frontier Trading Corporation, Chronology of the Case (on file with author).

177. PROFEPA Presentation, Summary of Brownfield Brainstorming Session (2000) (on file with author).

178. Alliance for the Wild Rockies, Center for International Environmental Law, Centro de Derecho Ambiental Noreste de Mexico, Centro Mexicano de Derecho Ambiental, Friends of the Earth, Instituto de Derecho Ambiental, Pacific Environment and Resource Center, Sierra Club of Canada, and West Coast Environmental Law Association.

179. 16 U.S.C. § 703–712 (1918). The MBTA is the federal law that enforces international conventions for the protection of migratory birds; the MBTA establishes a prohibition to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale,, at any time, or in any manner, any migratory bird” covered in four separate international conventions with Canada, Japan, Mexico and Russia established for the protection of shared migratory bird resources. Under the MBTA, migratory birds may be killed or taken only with a valid permit authorized by the U.S. Fish and Wildlife Service.

federal land throughout the U.S.¹⁸⁰ According to the submission, the U.S. has enforced the MBTA against agricultural interests, real estate developers, and private landowners, amongst others, but has never enforced the law against logging operations.¹⁸¹ Moreover, this widespread pattern of non-enforcement of the MBTA is based on a longstanding unwritten policy of the U.S. government to not take enforcement or investigative actions against logging operations.¹⁸²

In their submission, the environmental groups sought a review of the non-enforcement of the MBTA for all logging operations nationwide, however, the Council restricted the scope of the factual record to examining only the federal non-enforcement of two specific cases in which migratory bird nests were destroyed by logging operations in California and were prosecuted by the state.¹⁸³ The factual record provided a discussion of the enforcement actions taken by California in each of these cases and a review of whether additional federal enforcement of the cases under the Petite Policy¹⁸⁴ was warranted. The factual record also prominently highlighted the fact that the Council had reduced the scope of the factual record from that sought by the petitioners and recommended by the Secretariat.¹⁸⁵

In the factual record, the U.S. acknowledged that it has never prosecuted any logging operation under the MBTA, but contended that its lack of prosecution constituted a reasonable exercise of enforcement discretion and allocation of resources to higher enforcement priorities.¹⁸⁶ Moreover, the U.S. claimed that it employed non-enforcement strategies to protect migratory birds from logging activities, such as landscape level planning, public outreach, and avian mortality studies, amongst others.¹⁸⁷ Overall, the Migratory Bird factual record noted that the two cases examined in the process were "consistent with the federal government's record to date of never having enforced the MBTA in regard to logging operations."¹⁸⁸

When the Migratory Bird factual record was released, it received

180. *See generally* CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140.

181. CEC, MIGRATORY BIRDS – SUBMISSION (1999).

182. *Id.*

183. *Id.*

184. U.S.A.M. Ch. 9-2.031. The Petite Policy establishes guidelines for deciding whether to bring a federal prosecution based on conduct involved in a prior state or federal proceeding.

185. CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140, at 8, 18-19.

186. CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140, at 15-17.

187. CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140, at 17.

188. CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140, at 63.

practically no press coverage in the U.S.¹⁸⁹ According to a government official involved with this submission and one of the submitters, the factual record had absolutely no impact on the U.S. enforcement of the MBTA against logging operations. The submitter, however, noted that the factual record was useful for demonstrating that enforcement of the MBTA could feasibly be undertaken with respect to logging operations, contrary to claims of the U.S. government.

Considering the broader context of the MBTA, there has been a long history of litigation over implementation of this law and its applicability to direct and incidental takings of migratory birds.¹⁹⁰ The MBTA is a criminal statute that does not allow for private citizen lawsuits for non-enforcement.¹⁹¹ Environmental groups have pursued litigation under the Administrative Procedures Act to address non-enforcement against logging operations, but to no avail. The CEC citizen submission process offered a new legal avenue to address non-enforcement of the MBTA for these groups¹⁹² but in the end it proved ineffective; the factual record did not generate any political pressure within the U.S. to improve enforcement of the MBTA.¹⁹³

c. Survey Results

The opinion survey provides data on the collective perspective of stakeholders on the submission process. According to survey respondents, the overall effectiveness of the citizen submission process is ranked, on average, 2.6 (n=206) on a scale of 1 to 5, indicating that respondents viewed the process as being less than somewhat effective.¹⁹⁴ Figure 2 illustrates the distribution of the responses, by nationality of respondents.¹⁹⁵ With respect to the independence of the Secretariat in administering the process, respondents indicated that the Secretariat had a slightly above moderate level of independence, ranking it 3.2, on

189. Laura Miura, *FWS Illegally Exempting Loggers From Treaty, Groups Say*, LAND LETTER, May 1, 2003.

190. See generally Helen M. Kim, *Chopping Down the Birds: Logging and the Migratory Bird Treaty Act*, 31 ENVTL. L. 125, (2001); CEC MIGRATORY BIRDS FACTUAL RECORD, *supra* note 140; CEC MIGRATORY BIRDS – SUBMISSION, *supra* note 181.

191. CEC MIGRATORY BIRDS – SUBMISSION, *supra* note 181.

192. *Id.*

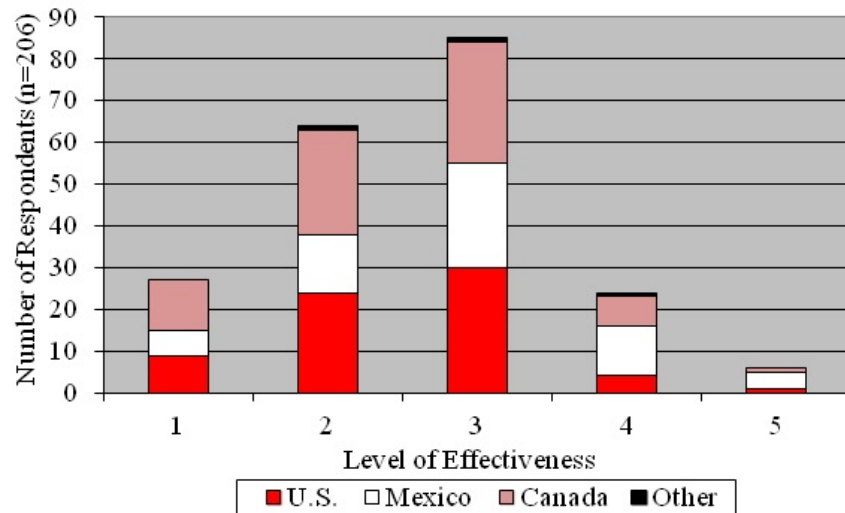
193. See also Wold *et al.*, *supra* note 123.

194. CEC Effectiveness Survey, *supra* note 94, Question 11. Likert scale 1 to 5: 1 = not being achieved, 3 = moderately being achieved, 5 = completely being achieved.

195. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 11. Testing for differences in responses based on nationality, Mexican respondents were significantly more likely to rank the effectiveness of the citizen submission process as greater than 3 compared to U.S. and Canadian respondents (Pearson $\chi^2(2) = 10.5054$, Pr = 0.005).

average, on a scale of 1 to 5¹⁹⁶ (n=176). Figure 3 illustrates the distribution of the responses, by nationality of respondents.¹⁹⁷

Figure 2: Effectiveness of the Citizen Submission Process (n=206)



Numerous respondents commented that the level of independence of the Secretariat had been higher in the past, but there has been a trend towards less independence. This trend was due to efforts by the governments to constrain the authority of the Secretariat in administering the citizen submission process by changes to procedures and the addition of “gateways.” However, one survey respondent noted that within the bounds of the NAAEC, the CEC wields as much independence as is possible for an organization that reports to the governments that it is monitoring.¹⁹⁸ Thus, it is unlikely that the CEC could exercise a high degree of independence given that it is a creature of the governments. Oversight by the government allows them to ensure that the CEC does not infringe on state sovereignty or create other political problems, because as another respondent observed, for the CEC “political considerations are critical as with any other intergovernmental organization.”¹⁹⁹

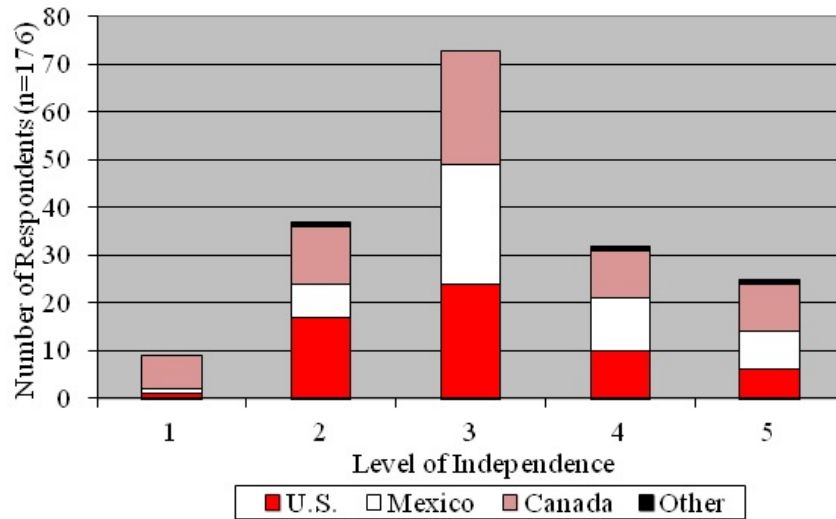
196. CEC Effectiveness Survey, *supra* note 94, Question 11. Likert scale 1 to 5: 1 = no independence, 3 = moderate independence, 5 = high independence.

197. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 11.

198. CEC Effectiveness Survey, *supra* note 94, Survey Number US66.

199. CEC Effectiveness Survey, *supra* note 94, Survey Number CN496.

Figure 3: Independence of the CEC Secretariat (n=176)



D. Integrating Trade and Environment Mandate

Integrating trade and the environment under NAFTA was considered one of the principal mandates of the CEC when it was created and was intended to ensure that environmental impacts of NAFTA were taken into consideration during its implementation. In general, this mandate consists of providing assistance and advice to the FTC on environmental matters and monitoring of the environmental effects of NAFTA.²⁰⁰ Overall, there has been no meaningful coordination between the Council and FTC up through 2010. However, the CEC has undertaken assessments of the environmental effects of NAFTA, although it appears that these assessments have had no significant impact on public policy in any of the three countries.

200. NAAEC, *supra* note 2, art. 10 § 6.

1. Assisting in the NAFTA FTC

The CEC Council is responsible for providing environmental expertise and guidance to the NAFTA FTC on environmental issues that might arise during implementation of NAFTA. Specifically, the Council: (1) serves as a point of inquiry for public comments on the environmental goals and objectives of NAFTA; (2) provides assistance in consultations under Article 1114 of NAFTA; (3) makes recommendations to the FTC with respect to avoiding environmental disputes; and (4) identifies experts to provide information or technical advice to NAFTA committees, working groups, and other NAFTA bodies.²⁰¹

Since the mid-1990s, the Council has attempted to coordinate with and provide assistance to the FTC, but there have been very few, if any, tangible results due to reluctance on the part of the FTC to establish strong linkages with the CEC. Trade and environment officials have conducted meetings since 1998 to identify environmental trade-related work under Article 10(6) of mutual interest to the Council and FTC.²⁰²

Initial meetings focused on responding to inquiries from nongovernmental organizations regarding NAFTA Chapter 11, but trade officials rejected any meaningful role for the CEC in responding to these inquiries. Subsequent meetings between trade and environment officials largely focused on procedural rather than substantive issues.²⁰³ According to officials both inside and outside of the governments in all three countries, the meetings to coordinate with the FTC have been extremely disappointing.²⁰⁴

Since 1996, the Council has also proposed conducting a ministerial-level meeting between environment and trade officials that could visibly demonstrate coordination between the Council and the FTC.²⁰⁵ As of

201. NAAEC, *supra* note 2, art. 10 § 6. NAFTA, *supra* note 1, art. 1114 pertains to environmental measures.

202. CEC, FINAL COMMUNIQUÉ OF THE NAFTA ENVIRONMENT COMMISSION'S 4TH ANNUAL SESSION (1997); CEC, COUNCIL FINAL COMMUNIQUÉ (1999) [hereinafter 1999 FINAL COMMUNIQUÉ].

203. Secretariat Note, Summary of 10(6) Environment and Trade Officials Meeting (Jan. 18, 2002) (on file with author).

204. One substantive outcome was a meeting between the trade and environment officials and the NAFTA Working Group on Standard-Related Measures in 2000; CEC, FINAL COMMUNIQUÉ (2000).

205. CEC, FINAL COMMUNIQUÉ: NORTH AMERICAN ENVIRONMENT MINISTERS ACCELERATE ENVIRONMENTAL PROTECTION EFFORTS (1996); CEC, COUNCIL COMMUNIQUÉ (2001). Final Communiqué of the annual meeting of the CEC Council in 1996: "The Council agreed to seek a joint meeting with trade ministers of the three countries to review the North American experience towards integrating trade and environment policies."

2010, however, such a meeting had not occurred, despite continued interest from the environment officials and pressure from the environmental community.²⁰⁶ Some government officials cite the lack of a substantive agenda as the primary reason that a meeting has never materialized, although other officials inside and outside of the governments contend that the trade ministers have no interest in meeting with their environment counterparts to discuss environmental issues of NAFTA because such a meeting would only serve to strengthen the linkages between the two policy spheres, which trade officials strongly oppose.

For its part, the FTC has never solicited advice from the Council on environmental matters, despite facing issues that could warrant some advice, such as several NAFTA Chapter 11 investor – state dispute settlement cases.²⁰⁷ In response to concerns over Chapter 11 panel rulings on environmental cases, the Council considered providing advice in the form of a Council Resolution, but the advice was never finalized and formally transmitted to the FTC.²⁰⁸ Lastly, the Council has never developed a list of experts to provide technical advice or information to the various NAFTA bodies, as stipulated under Article 10(6);²⁰⁹ the development of such a list was proposed in a draft of the first annual work plan for the CEC in 1995,²¹⁰ but instead of a list of experts, the Secretariat prepared a report on dispute avoidance.²¹¹

206. JPAC ADVICE TO COUNCIL NO. 98-08. RE: ARTICLE 10(6) OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION (1998); NATIONAL ADVISORY COMMITTEE ADVICE NO. 98-8, IMPLEMENTATION MECHANISM FOR COMMUNICATION AND COORDINATION BETWEEN THE CEC AND THE FREE TRADE COMMISSION UNDER ARTICLE 10(6) OF THE AGREEMENT (1998) (on file with author). In 2008, the CEC prepared a background paper for a proposed meeting of senior trade and environment officials, but the meeting did not occur; CEC, POSITIONING THE CEC'S WORK ON THE ASSESSMENT OF TRADE AND ENVIRONMENT LINKAGES FOR THE NEXT DECADE: OUTCOMES OF THE EXPERTS' ROUNDTABLE (2008) [hereinafter POSITIONING THE CEC'S WORK ON THE ASSESSMENT OF TRADE AND ENVIRONMENT LINKAGES].

207. 1999 FINAL COMMUNIQUÉ, *supra* note 202, “The Council fully supports and encourages the Free Trade Commission (FTC) to continue discussions on the NAFTA Chapter 11 (relating to the investor-state dispute settlement process). The Council offers to provide any assistance required by the FTC.” *See also* Letter from CEC Council members Christine S. Stewart, Julia Carabias, and Carol M. Browner to Free Trade Commission members Sergio Marchi, Herminio Blanco Mendoza, and Charlene Barshefsky (Dec. 1, 1998) (on file with author).

208. Documents released under FOIA Request HQ-RIN-01005-03 indicate that the Council developed a “draft Council resolution re investor-state issues” (on file with author). However, the resolution has never been approved, *see* CEC, <http://www.cec.org/> (last visited Jan. 26, 2011).

209. FOIA Request HQ-RIN-00457-04, *supra* note 114.

210. CEC, TABLE OF CONTENTS AND SUMMARY OF THE STATUS OF PROJECTS (on

Overall, there has been no meaningful cooperation between the FTC and the Council to address environmental issues associated with NAFTA, despite considerable pressure and effort to identify areas for coordination.²¹² In general, the trade officials have successfully resisted giving the environment a greater substantive role in trade policy implementation under NAFTA, and the environment ministers have hesitated taking on the trade ministers given that the Council does not have a strong institutional prerogative to pursue cooperation unilaterally.²¹³

a. Survey Results

According to survey respondents, the degree to which the CEC is successfully cooperating with and providing assistance to the FTC was ranked, on average, 2.2 on a scale of 1 to 5,²¹⁴ with over one third of the respondents (thirty-six percent) indicating that this objective has not been achieved at all.²¹⁵ Figure 4 illustrates the distribution of survey responses by nationality of respondent.²¹⁶

file with author).

211. CEC, 1995 PROGRAM REPORT (1996); CEC, DISPUTE AVOIDANCE: WEIGHING THE VALUES OF TRADE AND THE ENVIRONMENT UNDER THE NAFTA AND THE NAAEC (1996); Stephen Mumme, *The North American Commission on Environmental Cooperation: Towards a Working Agenda for the First Three Years* (1994) (on file with author).

212. See generally Kelly & Reed, *supra* note 61; Abel, *supra* note 61; Mann, *supra* note 61; Ferretti, *supra* note 61; Carlsen & Salazar, *supra* note 61; Sanchez, *supra* note 62.

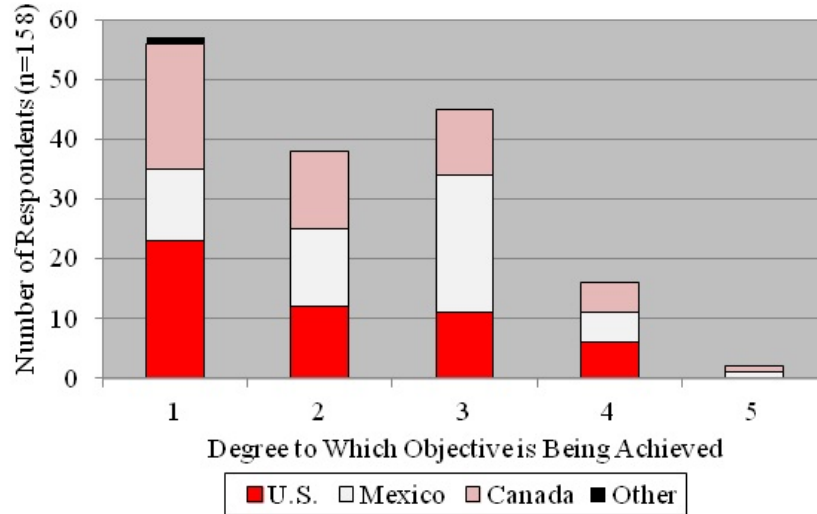
213. NAAEC, *supra* note 2, art. 10(6) establishes the basis for cooperation between the CEC and FTC. Art. 10(6) sets for four specific functions the CEC can perform to support the FTC, but it cannot do so without the acknowledgement and cooperation of the FTC. See, e.g., Abel, *supra* note 61; Mann, *supra* note 61; Ferretti, *supra* note 61; Sanchez, *supra* note 62. See also Interview Numbers CN-G-62 (Feb. 10, 2003); US-G-80 (Feb. 26, 2003); US-G-77 (Feb. 24, 2003); MX-G-121 (Apr. 3, 2003); CN-G-68 (Feb. 13, 2003).

214. CEC Effectiveness Survey, *supra* note 94, Question 7. Likert scale 1 to 5: 1 = not being achieved, 3 = moderately being achieved, 5 = completely being achieved.

215. CEC Effectiveness Survey, *supra* note 94, Question 7.

216. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 7.

Figure 4: Cooperating with and Providing Assistance to the NAFTA FTC (n=158)



Numerous survey respondents noted that the lack of coordination between the two institutions was due to the fact that the FTC was not interested in cooperating with the CEC.²¹⁷ One respondent noted that the environment ministers “are no match for their trade colleagues”; thus the CEC has been marginalized on trade issues.²¹⁸ Another respondent contended that there is more of a “trade vs. environment mentality rather than a trade and environment mentality” in both the CEC and the FTC.²¹⁹

2. NAFTA Environmental Effects Program

The other principal component of the trade and environment integration mandate of the CEC is the conducting of assessments of the environmental effects of NAFTA. The CEC has been slightly more successful in carrying out this portion of the mandate because the work does not rely on the active participation of the FTC.²²⁰ The assessment

217. CEC Effectiveness Survey, *supra* note 94, Survey Number CN32; US233; US843; CN11; MX10; US47; US380.

218. CEC Effectiveness Survey, *supra* note 94, Survey Number US21.

219. CEC Effectiveness Survey, *supra* note 94, Survey Number US274.

220. NAAEC, art. 10(6)(d) establishes that the CEC Council shall cooperate with

work, however, has been somewhat controversial because of the political sensitivity of empirically evaluating the environmental effects of NAFTA. According to officials both inside and outside of the governments in the three countries, the assessments of environmental effects of NAFTA have not had any major impact on public policy in any of the countries.

Concerns over the potential environmental impacts of trade and investment liberalization under NAFTA were the driving force behind creation of the NAAEC and there has been a continuing interest within academia, environmental groups, and others in assessing empirically the effects of NAFTA *ex post*.²²¹ In response, NAFTA Environmental Effects Program²²² was established in 1995, at the initiative of the Secretariat, to assess the impacts of NAFTA on the environment.²²³ Under the program, the CEC has developed an analytical framework, completed an initial set of studies examining three sectors of the economy to test the framework, and conducted symposia highlighting independent research on the environmental effects of NAFTA.

The environmental agencies in the three countries generally supported establishment of the NAFTA Environmental Effects program, with the exception of the Mexican trade ministry, SECOFI,²²⁴ which opposed from the onset any meaningful assessment of the environmental effects of liberalized trade and investment flows under NAFTA. The SECOFI viewed the CEC as a “monster” whose principal role was to interfere with industry and economic development and to close markets in Mexico. Mexican trade officials believed that the NAFTA

the NAFTA Free Trade Commission by “considering on an ongoing basis the environmental effects of the NAFTA.” This provision does not require any action on the part of the FTC, rather the CEC can undertake the ongoing evaluation of the environmental effects of the NAFTA unilaterally.

221. See CEC, ENVIRONMENTAL ASSESSMENT OF NAFTA: LESSONS LEARNED FROM CEC'S TRADE AND ENVIRONMENT SYMPOSIA, at 8 (Apr. 2008). See also Chantal Line Carpentier, *NAFTA Commission for Environmental Cooperation: Ongoing Assessment of Trade Liberalization in North America*, 24 IMPACT ASSESSMENT & PROJECT APPRAISAL 259 (2006); KEVIN GALLAGHER, FREE TRADE AND THE ENVIRONMENT, MEXICO, NAFTA, AND BEYOND (2004); POSITIONING THE CEC'S WORK ON THE ASSESSMENT OF TRADE AND ENVIRONMENT LINKAGES, *supra* note 204; CEC, CEC COUNCIL COMMUNIQUÉ, NINTH REGULAR SESSION OF THE CEC COUNCIL, Jun. 19, 2002; CEC MINISTERIAL STATEMENT TWELFTH REGULAR SESSION OF THE CEC COUNCIL, Jun. 22, 2005; CEC MINISTERIAL STATEMENT THIRTEENTH REGULAR SESSION OF THE CEC COUNCIL, Jun. 28, 2006.

222. This initiative has undergone numerous names changes over the years, but will be referred to herein as the NAFTA Environmental Effects Program.

223. CEC, 1995 CEC ANNUAL REPORT (1995).

224. The Mexican trade ministry was previously called Secretaría de Comercio y Fomento Industrial (SECOFI), but is now called Secretaria de Economía (SE).

Environmental Effects program would only highlight the negative impacts of NAFTA and they did not want any criticism of the trade agreement. In their view, the primary purpose of the NAFTA Environmental Effects program was to make Mexico look bad.

Given the opposition of the SECOFI to directly studying the environmental effects of NAFTA, the Secretariat initially focused on developing an analytical framework,²²⁵ which was perceived to be non-threatening. Once the framework was developed, the Secretariat then completed three sector-specific studies²²⁶ to test the framework, but these studies proved to be politically sensitive and the governments repeatedly sought to delay their completion and release. Given this opposition, the Secretariat began utilizing a symposium format where third-parties conducted the research rather than the Secretariat. The symposium approach was more palatable to the trade officials, but it served to lower the quality of the research. As of 2010, the Secretariat had conducted symposia in 2000, 2003, 2005, and 2008 examining a wide range of environmental effects.²²⁷

The NAFTA Environmental Effects program has generated some credible research on the effects of trade and investment liberalization.²²⁸

225. CEC, ASSESSING THE ENVIRONMENTAL EFFECTS OF THE NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA): AN ANALYTIC FRAMEWORK (PHASE II) AND ISSUES STUDIES (1999). At the same time, the CEC completed studies that examined more general NAFTA environmental effects; CEC, A SURVEY OF RECENT ATTEMPTS TO MODEL THE ENVIRONMENTAL EFFECTS OF TRADE: AN OVERVIEW AND SELECTED SOURCES (1995); CEC, POTENTIAL NAFTA EFFECTS: CLAIMS AND ARGUMENTS 1991-1994 (1995).

226. CEC MAIZE IN MEXICO: SOME ENVIRONMENTAL IMPLICATIONS OF THE NORTH AMERICA FREE TRADE AGREEMENT (NAFTA), *available at* http://www.cec.org/Page.asp?PageID=30101&ContentID=17060&SiteNodeID=509&BL_ExpandID= (1999); CEC, ELECTRICITY IN NORTH AMERICA: SOME ENVIRONMENTAL IMPLICATIONS OF THE NORTH AMERICA FREE TRADE AGREEMENT (NAFTA) *available at* http://www.cec.org/Page.asp?PageID=30101&ContentID=16727&SiteNodeID=509&BL_ExpandID= (1999); CEC, FEEDLOT PRODUCTION OF CATTLE IN THE UNITED STATES AND CANADA: SOME ENVIRONMENTAL IMPLICATIONS OF THE NORTH AMERICA FREE TRADE AGREEMENT (NAFTA) *available at* http://www.cec.org/Page.asp?PageID=30101&ContentID=17061&SiteNodeID=509&BL_ExpandID= (1999).

227. *Environment, Trade and Sustainability: Environmental Assessment of NAFTA*, CEC, <http://www.cec.org/Page.asp?PageID=924&SiteNodeID=588> (last visited Oct. 14, 2011).

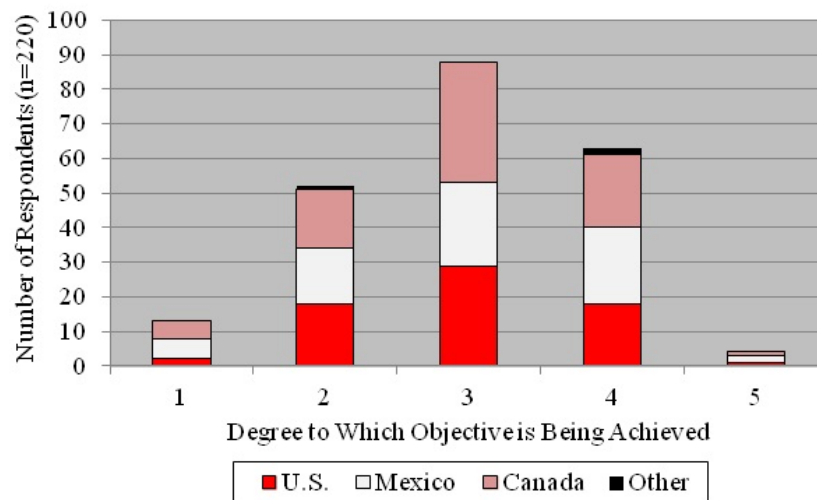
228. See, e.g., SCOTT VAUGHAN, *Understanding the Environmental Effects of Trade: Some Lessons from NAFTA*, in LINKING TRADE, *supra* note 75, at 225; KAREL MAYRAND & MARC PAQUIN, UNISFÉRA INT'L CENTRE, THE CEC AND NAFTA EFFECTS ON THE ENVIRONMENT: DISCUSSION PAPER), *available at* http://unisfera.org/IMG/pdf/Unisfera_-_NAFTA_effects.pdf; Carpentier, *supra* note 221.

However, it has also underscored the difficulties in isolating the specific impacts of NAFTA on the environment. According to officials familiar with the program, the use of these studies by either the government or other groups to inform the policy-making process has been minimal. There is just one well-known instance where the research has had a direct impact: a study by Jacott, Reed and Winfield²²⁹ that highlighted increased trans-boundary shipments of hazardous waste from the U.S. to Canada. However, the changes in shipments of waste between the countries were not due to implementation of NAFTA, but rather pre-existing differences in regulations.

a. Survey Results

According to survey respondents, the degree to which the CEC is achieving the objective of evaluating environmental and trade linkages of NAFTA is ranked, on average, 3.0 on a scale of 1 to 5²³⁰ (n=220), indicating that the objective is being moderately achieved.²³¹ Figure 5 illustrates the distribution of responses by nationality of respondents.²³²

Figure 5: Evaluating Trade and Environment Linkages of the NAFTA (n=220)



between Mexico, Canada, and the United States, 1990-2000, in THE ENVIRONMENTAL EFFECTS OF TRADE, PAPERS PRESENTED AT THE NORTH AMERICAN SYMPOSIUM ON ASSESSING THE LINKAGES BETWEEN TRADE AND ENVIRONMENT (OCTOBER 2000), 161, 197 (Commission for Environmental Cooperation, 2002), available at http://www.cec.org/Storage/45/3763_symposium-e.pdf (2000).

230. CEC Effectiveness Survey, *supra* note 94, Question 7. Likert scale 1 to 5: 1 = not being achieved, 3 = moderately being achieved, 5 = completely being achieved.

231. CEC Effectiveness Survey, *supra* note 94, Question 7.

232. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 7.

E. Independent Reporting Mandate

The independent reporting mandate of the CEC allows the Secretariat to conduct independent reviews of environmental issues that have regional implications or may further objectives of the NAAEC.²³³ As of autumn 2011, the Secretariat had prepared seven independent reports examining: (1) causes of a massive bird die-off in Silva Reservoir in Mexico; (2) watershed management issues for the Upper San Pedro River in Arizona; (3) long-range transport of air pollutants in North America; (4) environmental impacts of deregulation and integration of the electricity sector in North America; (5) the impacts of transgenic maize on biodiversity in Mexico; (6) policies and practices associated with green buildings; and, (7) the steps needed to reduce greenhouse gas emissions from freight transportation in North America.²³⁴ The assessment examined, using process tracing, the impacts of five reports.

1. Ribbon of Life Report

The Upper San Pedro River report focused on water management of the U.S. reach of the Upper San Pedro River as it related to impacts on its riparian zone, which is an important habitat for migratory songbirds.²³⁵ The preparation of the report generated considerable media interest within Arizona, resulting in the direct involvement of members of the Arizona Congressional delegation, then Secretary of the Interior

233. NAAEC, *supra* note 2, art. 13.

234. CEC SILVA RESERVOIR REPORT, *supra* note 64; CEC RIBBON OF LIFE REPORT, *supra* note 68; CEC CONTINENTAL POLLUTANT PATHWAYS REPORT, *supra* note 66; CEC, ENVIRONMENTAL CHALLENGES AND OPPORTUNITIES FOR EVOLVING NORTH AMERICAN ELECTRICITY MARKET (2002), *available at* http://cec.org/Storage/31/2244_CEC_Art13electricity_Eng.pdf [hereinafter CEC EVOLVING ELECTRICITY MARKET REPORT]; CEC, MAIZE AND BIODIVERSITY, THE EFFECTS OF TRANSGENIC MAIZE IN MEXICO (2004), *available at* http://www.cec.org/Storage/56/4837_Maize-and-Biodiversity_en.pdf [hereinafter CEC MAIZE AND BIODIVERSITY REPORT]; CEC, GREEN BUILDINGS IN NORTH AMERICA, OPPORTUNITIES AND CHALLENGES (2008), *available at* http://www.cec.org/Storage/61/5386_GB_Report_EN.pdf; CEC, DESTINATION SUSTAINABILITY, REDUCING GREENHOUSE GAS EMISSIONS FROM FREIGHT TRANSPORT IN NORTH AMERICA (2011), *available at* http://www.cec.org/Storage/61/5386_GB_Report_EN.pdf.

235. The San Pedro River is a transboundary water body originating in Mexico and flowing north into the U.S. For general information on the San Pedro River, *see* Upper San Pedro Partnership, A Working Water Conservation Plan, *available at* <http://www.uspppartnership.com/docs/USPPConservPlan030212.pdf> [hereinafter USPP]; Hector M. Arias, *International Groundwaters: The Upper San Pedro River Basin Case*, 40 NAT. RESOURCES J. 199 (2000).

Babbitt, the Governor of Arizona, and local elected officials.²³⁶ Prior to the completion of the CEC report, on-going efforts at the local level to improve water management in the river basin had had limited effectiveness and, overall, the Secretariat report served to strengthen these efforts.

In particular, the report contributed to the establishment of the Upper San Pedro Partnership for the coordination of a range of stakeholders in the management of the river.²³⁷ Through the Partnership, numerous recommendations in the report have been implemented, such as the purchase of conservation easements close to the border.²³⁸ Efforts to address the need for conservation along the Mexican reach of the river that were highlighted in the report have continued to face challenges. However, overall, the Secretariat report increased awareness locally and nationally regarding the significance of the San Pedro River for migratory species and appears to have contributed to the improved management of water resources in the San Pedro River basin.

2. *Silva Reservoir Report*

The Silva Reservoir study examined the causes of a massive die-off of migratory waterbirds at a large surface water impoundment in Mexico in the winter of 1994 – 95.²³⁹ The report identified a link between the bird die-off and industrial pollution to the Turbio River, the major tributary to the Reservoir. Since the late 1980s, Mexico had sought to address pollution in the Turbio River, and the Secretariat report served to increase attention focused on the problem and on-going efforts to clean-up the River.²⁴⁰ During the preparation of the report, Mexico established the Turbio River Comprehensive Clean-up Program.²⁴¹ After the report's

236. Linda Valdez, *NAFTA's Environmental Frankenstein has potential for good*, ARIZ. REPUBLIC, July 25, 1997, at B1; Bill Hess, *Officials seek smoother start to new river study*, SIERRA VISTA HERALD, July 23, 1997, at page 1A; Bill Hess, *Trade debate*, SIERRA VISTA HERALD, Sept. 14, 1997, at 1A, 11A; Steve Yozwiak, *NAFTA to study San Pedro River*, ARIZ. REPUBLIC, May 29, 1997, at A1, A23.

237. See generally Varaday et al., *supra* note 69; Arias, *supra* note 69; USPP, *supra* note 235.

238. USPP, *supra* note 235, at 16-17; ELIZABETH HARRIS ET AL, TRANSBOUNDARY COLLABORATION IN ECOSYSTEM MANAGEMENT: INTEGRATING LESSONS FROM EXPERIENCE, 209, 224 (2001), available at http://www.snre.umich.edu/ecomgt/pubs/transboundary/TB_Collab_Full_Report.pdf.

239. See CEC SILVA RESERVOIR REPORT, *supra* note 64, at 15.

240. Allen Blackman & Nicholas Sisto, *Voluntary Environmental Regulation in Developing Countries: A Mexican Case Study*, 46 NAT. RESOURCES J. 1005, 1031 (2006).

241. CEC SILVA RESERVOIR REPORT, *supra* note 64, at 5; Blackman & Sisto, *supra* note 240, at 1032; Nauman, *supra* note 65; at 96-99; see also Christopher Bolinger,

release, the Reservoir was designated a State Natural Protected Area in 1997 and funding was provided for wetlands and restorations projects at the Reservoir in 1998.²⁴² However, as of the mid-2000s, there had been limited progress made in reducing pollution to the River.²⁴³

3. *Continental Pollutant Pathways Report*

The Secretariat report on long-range transport of air pollutants examined the nature and extent of major pollutant pathways to, from, and within the North American continent.²⁴⁴ In general, this report inventoried existing air quality modeling and data collection efforts, and reviewed tri-national patterns of pollutant exchange.²⁴⁵ According to government and CEC officials, the report by itself did not have any direct impact on policy in any of the three countries, but it subsequently served as a technical basis for further cooperative efforts on air quality issues between the three countries under the auspices of the CEC.²⁴⁶

4. *Electricity and the Environment Report*

The study of the environmental effects of integration of the electricity sector in North America examined a range of policy issues related to integration of the electricity sector, including subsidies, energy efficiency and renewables, and trade in electricity.²⁴⁷ The report, however, was not supported by the U.S. Department of Energy and the U.S. subsequently opposed releasing it to the public.²⁴⁸ The report was eventually released, but according to government and CEC officials familiar with the report, it has not had any impact on public policy or inspired any government action.²⁴⁹

Assessing the CEC on its Record to Date, 28 LAW & POL'Y INT'L BUS. 1107, 1117 (1997).

242. Ana Escamilla & Meredith Gutowski, *Project Profiles – Mexico, From Tragedy to Triumph at La Presa de Silva*, U.S. FISH & WILDLIFE SERVICE, CONSERVATION LIBRARY, NATIONAL CONSERVATION TRAINING CENTER, (April 1, 2010), <http://library.fws.gov/Birdscapes/fall00/Ppmx.html>.

243. Blackman & Sisto, *supra* note 240, at 1039-1042.

244. See CEC CONTINENTAL POLLUTANT PATHWAYS REPORT, *supra* note 66.

245. *Id.*

246. See, e.g., ENVTL. ECON. CEC, ENHANCING NORTH AMERICAN AIR QUALITY MANAGEMENT (2001), *available at*, <http://www.cec.org/> (last visited Apr. 16, 2011).

247. CEC EVOLVING ELECTRICITY MARKET REPORT, *supra* note 234.

248. Interview Numbers US-C-95 (Mar. 7, 2003); CN-C-86 (Feb. 28, 2003).

249. Interview Numbers US-C-95 (Mar. 7, 2003); US-C-103 (Mar. 12, 2003); CN-C-157 (Jul. 2, 2003); Survey Numbers US663, US67, US233, CN278, US472.

5. Maize and Biodiversity Report

The study of the impacts of transgenic maize or corn examined the potential risks associated with the increased imports or production of transgenic species of corn on biodiversity in Mexico.²⁵⁰ Given the political, cultural, and economic importance of corn in Mexico as well as the fact that the U.S. was a major exporter of transgenic corn to Mexico, the study was highly controversial.²⁵¹ Prior to the report, the Mexican government already had a moratorium on planting genetically modified corn in 1998, but the moratorium had limited effectiveness.²⁵² The report offered a number of recommendations to further mitigate the risk from transgenic species of corn; the most significant was a requirement that all corn exported from the U.S. into Mexico each year be milled at the border before entering the country.²⁵³ This recommendation was strongly opposed by the U.S. and has never been implemented.²⁵⁴ Overall, the report served to focus attention on potential risks for transgenic corn, but given the controversy surrounding the preparation and recommendations of the report, perhaps its' most significant outcome was the realization by the three governments that the Secretariat could not be entrusted to undertake independent studies of highly sensitive issues.²⁵⁵

250. CEC MAIZE AND BIODIVERSITY REPORT, *supra* note 234.

251. Interview Number CN-C-4 (Jun. 9, 2003); Survey Number MX171. *See also* Joel Wainright & Kristin L. Mercer, *Transnational transgenes: the political ecology of maize in Mexico*, in GLOBAL POLITICAL ECOLOGY 412 (Richard Peet, Paul Robbins, & Michael J. Watts, eds. 2011); Peter Canby, *Retreat to Subsistence*, THE NATION, (June 16, 2010), available at <http://www.thenation.com/article/36330/retreat-subsistence>; Elizabeth Fitting, *Importing Corn, Exporting Labor: The Neoliberal Corn Regime, GMOs, and the Erosion of Mexican Biodiversity*, 15 AGRIC. & HUMAN VALUES 23 (2006); TIMOTHY A. WISE, GLOBAL DEVELOPMENT AND ENVIRONMENT INSTITUTE, WORKING PAPER NO. 07-01; Tim Wise, POLICY SPACE FOR MEXICAN MAIZE: PROTECTING AGRO-BIODIVERSITY BY PROMOTING RURAL LIVELIHOODS (2007), available at <http://www.ase.tufts.edu/gdae/Pubs/wp/07-01MexicanMaize.pdf>.

252. CEC MAIZE AND BIODIVERSITY REPORT, *supra* note 234, at 16.

253. *Id.* at 31.

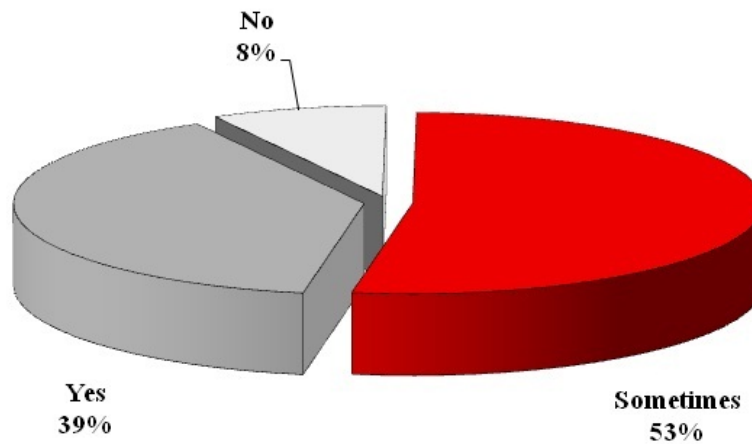
254. Canby, *supra* note 251; *see also* U.S. Calls NAFTA Environmental Report "Flawed, Unscientific", OFFICE OF THE U.S. TRADE REPRESENTATIVE, EXEC. OFFICE OF THE PRESIDENT, <http://www.ustr.gov/about-us/press-office/press-releases/archives/2004/november/us-calls-nafta-environmental-report-8220> (Nov. 9, 2004).

255. In 2005, the Council disapproved a request from the Secretariat to complete an independent report on transboundary environmental impact assessments, a sensitive issue for the three countries, *see Council Resolution: 05-07, Decision Regarding the Proposal by the Secretariat of the Commission for Environmental Cooperation (CEC) to Prepare an Article 13 Report on Case Studies on Transboundary Environmental Impact Assessment*, CEC (Aug. 31, 2005), <http://www.cec.org/Page.asp?PageID=122&ContentID=986&SiteNodeID=268>. Since

6. Survey Results

Approximately two fourths (40%) of the survey respondents indicated that the Secretariat reports prepared under Article 13 had been effective (n=173) in improving the governments' understanding of important environmental issues or strengthening environmental programs while over half (53%) responded that the reports were sometimes effective.²⁵⁶ Figure 6 illustrates the distribution of responses.²⁵⁷ Written comments provided on the surveys, however, indicated that many of the respondents were confusing the reports prepared under Article 13 with other reports prepared by the Secretariat under the CEC's cooperative environmental initiatives. As such, these data should be evaluated with some caution.

Figure 6: Effectiveness of Secretariat Reports in Increasing Understanding of Important Environmental Issues (n=173)



Although numerous survey respondents identified the San Pedro River, Silva Reservoir, and the electricity sector studies as inspiring government actions or providing useful comparative environmental information for the North American region, other respondents questioned the value of the reports and the quality of the analyses due to, as one

2005, the Secretariat has been authorized to complete reports on two non-sensitive issues, green buildings and sustainable freight transportation, *Independent Secretariat Reports*, CEC, <http://www.cec.org/Page.asp?PageID=924&SiteNodeID=332> (last visited Oct. 15, 2011).

256. CEC Effectiveness Survey, *supra* note 94, Question 10.

257. *Id.*

respondent described “an unfortunate history of unbalanced journalistic reporting of information and opinions on some issues, which diminishes the credibility of all the reports in the eyes of the governments, scientists, and private sector”.²⁵⁸ Another respondent noted that “[t]he information and science behind the environmental issues is pretty well-known, at least in the U.S. What is lacking is the political will to do much of anything about it, except perhaps cosmetic tinkering.”²⁵⁹ However, one respondent surmised that “[t]he process of producing the report (negotiation, mediation, information gathering) is where most of the value is derived, the reports themselves have limited utility.”²⁶⁰

With respect to the independence of the Secretariat in preparing the Article 13 reports, respondents indicated that the Secretariat had an above moderate level of independence, ranking it, on average, 3.5 on a scale of 1 to 5 (n=165).²⁶¹ Figure 7 illustrates the distribution of the responses, by nationality of respondents.²⁶² Overall, comments provided by survey respondents did not indicate any problems with the independence of the Secretariat in preparing the reports, especially when compared to its independence in administering the citizen submission process.²⁶³ Still some respondents acknowledged that it is very difficult for the CEC to act as a “supranational entity”²⁶⁴ given that it is a “representative of the three governments.”²⁶⁵

258. CEC Effectiveness Survey, *supra* note 94, Question 10, Survey Number CN278.

259. CEC Effectiveness Survey, *supra* note 94, Question 10, Survey Number US292.

260. CEC Effectiveness Survey, *supra* note 94, Question 10, Survey Number US66.

261. CEC Effectiveness Survey, *supra* note 94, Question 10. Likert scale 1 to 5: 1 = no independence, 3 = moderate independence, 5 = high independence.

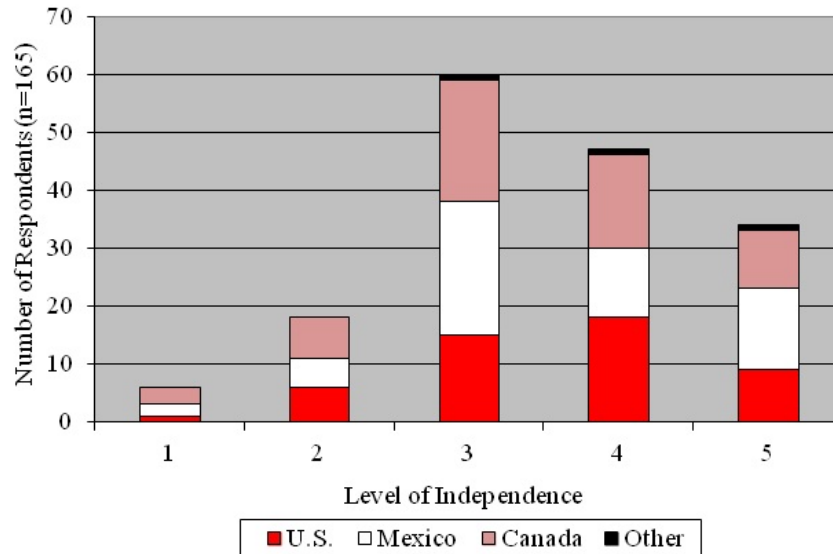
262. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 10.

263. CEC Effectiveness Survey, *supra* note 94, Questions 10 and 11. Five respondents provided comments reflecting problems with the independence of the Secretariat for preparing Article 13 reports while twenty-two respondents provided comments reflecting problems with the independence of the Secretariat for administering the Article 14 and 15 process.

264. CEC Effectiveness Survey, *supra* note 94, Question 10, Survey Number MX324.

265. CEC Effectiveness Survey, *supra* note 94, Question 10, Survey Number US846.

Figure 7: Independence of Secretariat in Preparing Article 13 Reports (n=165)



F. Environmental Cooperation Mandate

The mandate of the CEC to undertake voluntary environmental cooperation has been considered by the governments to be the primary mandate for the CEC and designed to endure over the long-term.²⁶⁶ Since the CEC was established, environmental cooperation initiatives have constituted the majority of its work and have generally focused on fostering greater policy coordination between the three countries.²⁶⁷ The CEC has implemented a wide variety of cooperative initiatives that have varied considerably in scope and duration under four areas since 1995.²⁶⁸ The empirical assessment focused on a single initiative from each of the four core programmatic areas to assess its impact on government action or public policy. The primary criterion used to select the initiatives was its duration or longevity.²⁶⁹ In general, there has been considerable turnover of the CEC portfolio largely due to changing interests of the governments. Thus, longer-lived initiatives were selected for review because, as a practical matter, these initiatives are more likely to have an

266. See, e.g., Inside U.S. Trade, *supra* note 24; Interview Numbers US-G-80 (Feb. 26, 2003); CN-G-63 (Feb. 11, 2003); US-G-126 (Apr. 26, 2003); MX-G-154 (Jun. 24, 2003); US-G-107 (Mar. 17, 2003); CN-G-62 (Feb. 10, 2003); US-G-77 (Feb. 24, 2003).

267. *Supra* notes 30, 31.

268. *Supra* note 31, *see also*, Table 1.

269. *Supra* note 91.

impact than initiatives that were short-lived or partially implemented and terminated. Table 6 lists the environmental cooperative initiatives examined in this assessment.²⁷⁰

Table 6: Environmental Cooperation Initiatives

Core Programmatic Area	Cooperative Initiative
Pollutants and Health	Sound Management of Chemicals
Conservation of Biodiversity	North American Bird Conservation Initiative
Law and Policy	Enforcement and Compliance Cooperation Forum
Environment, Economy, and Trade	NAFTA Environmental Effects Program

The Environment, Economy, and Trade core programmatic area has historically consisted of a number of small, short-lived initiatives. The NAFTA Environmental Effects Program was selected for the empirical assessment because it was the longest in duration. However, this initiative is also considered a central element of the integrating trade and environment mandate, and thus is discussed under that section. The following provides an overview of the other three cooperative initiatives and a discussion of the outcomes and impacts of the initiatives on government action or public policy.

1. *Sound Management of Chemicals*

The Sound Management of Chemicals (“SMOC”) is a flagship initiative for the CEC and is considered one of its most successful programs.²⁷¹ In general, the SMOC is focused on improving the management and use of certain persistent, bio-accumulative, and toxic substances through the development of North American Regional Action Plans (“NARAP”) that outline differentiated commitments to take action on each targeted substance.²⁷² At the end of 2010, NARAPs had been

270. Allen, *supra* note 5; *see also*, note 31.

271. The Sound Management of Chemicals was established in 1995 and has been continuously funded and implemented up through end of 2010. *Council Resolution 95-05, Sound Management of Chemicals* (Oct. 13, 1995) [hereinafter *Council Resolution 95-05*], *available at* http://www.cec.org/Page.asp?PageID=122&ContentID=1189&SiteNodeID=280&BL_ExpandID=

272. TASK FORCE ON CRITERIA, CEC, PROCESS FOR IDENTIFYING CANDIDATE SUBSTANCES FOR REGIONAL ACTION UNDER THE SOUND MANAGEMENT OF CHEMICALS INITIATIVE, REPORT TO THE NORTH AMERICAN WORKING GROUP ON THE SOUND MANAGEMENT OF CHEMICALS BY THE TASK FORCE ON CRITERIA (1997), *available at* http://www.cec.org/Storage/44/3631_Crit-2-e_EN.pdf.

developed and completely or partially implemented for dichlorodiphenyltrichloroethane (“DDT”), chlordane, mercury, polychlorinated biphenyls (“PCBs”), lindane, and hexachlorocyclohexane.²⁷³ As of 2010, the three countries had also developed a NARAP for environmental monitoring and assessment, and were evaluating poly brominated diphenyl ethers as a potential candidate for a future NARAP, as well as alternative strategies for improving management of dioxins, furans, and hexachlorobenzene in lieu of a NARAP.²⁷⁴

The most frequently cited SMOC success story has been elimination of the use of DDT and chlordane in Mexico.²⁷⁵ However, other achievements include the completion of the first inventory of atmospheric mercury emissions in Mexico and establishment of a partial monitoring network for mercury in North America. Also in Canada, the SMOC has led to the deregistration of lindane for agricultural uses in 2004,²⁷⁶ an increased rate of destruction of PCBs nationwide, an expanded mercury program to focus on new sources, particularly on coal-fired power plants, and changed reporting levels for mercury under its national pollutant transfer and release registry. In the U.S. the SMOC has not had any major impact on policy or government action.

The actions taken by Mexico and Canada related to the targeted chemicals, however, may not be attributed entirely to the SMOC. According to some officials associated with the SMOC, the actual impact of the SMOC on policy or government action has probably been minimal. For the phase-out of DDT in Mexico, the Mexican government already had a strong domestic policy in place prior to the SMOC to

273. The initial list of targeted substances included 12 persistent organic pollutants (the “Dirty Dozen”) identified in the United Nations Environment Programme Governing Council Decision 18/32 of May 1995: PCBs, dioxins, furans, aldrin, dieldrin, DDT, endrin, chlordane, hexachlorobenzene, mirex, toxaphene, heptachlor, along with certain heavy metals, such as mercury, cadmium, and lead. *Council Resolution: 95-05, Sound Management of Chemicals*, CEC (Oct. 13, 1995), available at <http://www.cec.org/Page.asp?PageID=924&ContentID=1189>; CEC, THE SOUND MANAGEMENT OF CHEMICALS (SMOC) INITIATIVE OF THE COMMISSION FOR ENVIRONMENTAL COOPERATION OF NORTH AMERICA, OVERVIEW AND UPDATE (2003) [hereinafter CEC SMOC], available at http://cec.org/Storage/52/4474_SMOC-OverviewUpdate_Oct03_en.pdf.

274. CEC, 2010 OPERATIONAL PLAN, *supra* note 31.

275. Canada and the U.S. both banned the use of chlordane and DDT prior to establishment of the SMOC. *North America ahead of the game on DDT elimination*, TRIO, CEC (July 1, 2001), <http://www.cec.org/Page.asp?PageID=122&ContentID=2452&SiteNodeID=462>.

276. *Consumer Product Safety, Re-evaluation Note REV2009-08, Lindane Risk Assessment*, HEALTH CANADA (Aug. 27 2009), http://www.hc-sc.gc.ca/cps-ipc/pest/part/consultations/_rev2009-08/lindane-eng.php.

identify and implement DDT alternatives and had made considerable progress on reducing use of the pesticide since the 1980s. From a historical usage of 25,000 tons per year in the 1970s,²⁷⁷ Mexico had reduced its use to less than 600 tons by 1997.²⁷⁸ The SMOC provided assistance on alternatives to reduce the remaining DDT, facilitating an earlier phase-out than might have otherwise occurred, but its overall influence was minimal.²⁷⁹

Similarly with chlordane, Mexico had already severely restricted the use of this chemical prior to establishment of the SMOC and usage had dropped to less than 20 tons per year by 1996.²⁸⁰ The SMOC was useful for providing information on chlordane alternatives, but according to one government official, chlordane was a minor chemical to eliminate and would have been eliminated easily anyway.²⁸¹ This official considered "the SMOC a façade; it looks like a lot is being done, but the work is only on small projects that have marginal effects given the overall scope of the environmental programs in the countries."²⁸² With respect to Canada, some of the actions it has undertaken with respect to the targeted chemicals, such as changing reporting levels for mercury or eliminating the use of lindane, may have already been in progress prior to implementation of the SMOC.²⁸³

277. CEC, HISTORY OF DDT IN NORTH AMERICA IN 1997 4 (1997), available at http://www.cec.org/Storage/40/3241_historyddte_en.pdf. Usage of DDT was higher in the late 1950s and early 1960s, but no specific data exist on use levels (for graphical representation of usage).

278. North American Working Group for the Sound Management of Chemicals Task Force on DDT and Chlordane, *North American Regional Action Plan on DDT*, CEC (June 1997), <http://cec.org/Page.asp?PageID=924&ContentID=1262> (use restricted to malaria control). Prior to the SMOC, Mexico had planned to phase out use of DDT by 2007.

279. Interview Numbers CN-G-70 (Feb. 14, 2003); US-G-76 (Feb. 24, 2003); CN-G-109 (Mar. 19, 2003); US-G-105 (Mar. 12, 2003); US-G-48 (Jan. 22, 2003); MX-G-120 (Apr. 3, 2003); MX-G-122 (Apr. 4, 2003); US-G-100 (Mar. 11, 2003).

280. North American Regional Action Plan on DDT, North American Working Group for the Sound Management of Chemicals Task Force on DDT and Chlordane CEC (June 1997) (on file with author); History of DDT in North America to 1997 (on file with author).

281. Interview Number MX-G-122 (Apr. 4, 2003).

282. Interview Number MX-G-122 (Apr. 15, 2003).

283. Interview Numbers CN-G-70 (Feb. 14, 2003); CN-G-109 (Mar. 19, 2003); see also *Mexico to Eliminate Toxic Chemical Lindane*, TRIO, CEC (Oct. 8, 2004), <http://www.cec.org/Page.asp?PageID=122&ContentID=2101&SiteNodeID=359>. (Winter 2004/2005). According to interviewees, Canada had taken specific actions on some chemicals under the SMOC; it had deregistered uses, increased the rate of its destruction of PCBs nationwide, expanded its mercury program to focus on new sources of mercury from coal-fired power plants, and changed reporting levels for mercury under its national pollutant transfer and release registry.

Considering the SMOC in a broader context, this initiative coincided with other domestic and international efforts to improve management or reduce the use of certain toxic substances²⁸⁴ in the three countries. All three countries had already implemented policies to ban or severely restrict use of many substances on the original list of targeted chemicals. In light of these pre-existing efforts, many government officials and others familiar with the SMOC program indicated that the government actions that occurred under the SMOC would have occurred anyway, but probably were achieved a little more quickly as a result of the initiative. Given the fact that the U.S. and Canada already had well-established programs for toxics management, the real purpose of the SMOC was to harmonize the Mexican regulatory system for toxic substances with those of the other two countries.

Despite considerable activity early in the SMOC program, efforts by the governments to take action on other chemicals have become stalled and very little new work has been undertaken since about 2001.²⁸⁵ For example, lead was first considered a candidate for action under the SMOC in 1998,²⁸⁶ yet the U.S. and Mexico have delayed making specific commitments on this heavy metal for a number of years due to strong opposition from industry.²⁸⁷ It took until 2003 for the countries to formally propose a NARAP be prepared for lead,²⁸⁸ however, as of the end of 2010, a final decision on developing a NARAP for this metal had

284. There are numerous other international agreements under which cooperation occurs, including: Stockholm Convention on Persistent Organic Pollutants, May 22, 2001, 40 I.L.M. 532; Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, 34 U.S.T. 3043, 1302 U.N.T.S. 217; U.S.-Canada Great Lakes Water Quality Agreement, as Amended, U.S.-Can., Nov. 22, 1978, 30 U.S.T. 1384.

285. Interview Numbers US-G-100 (Mar. 11, 2003); CN-G-70 (Feb. 14, 2003); US-G-76 (Feb. 24, 2003); MX-G-120 (Apr. 3, 2003); MX-G-122 (Apr. 4, 2003). The Council authorized development of only one new NARAP, for Lindane and hexachlorocyclohexane, between 2001 and 2010, compared with six NARAPs between 1995 and 2001, *see* CEC COUNCIL RESOLUTIONS 06-12 (Nov. 30, 2006), 02-07 (Jun. 19, 2002); 99-01 (Jun. 28, 1999); 99-02 (Jun. 28, 1999); 95-05 (Oct. 13, 1995); *see also* CEC annual plans, *supra* note 31. In 2008, the Council reversed its decision to prepare a NARAP for dioxins, furans, and hexachlorobenzene, *see* CEC COUNCIL RESOLUTION 08-06 (Jun. 26, 2008). *See also* KATE DAVIES, REVIEW OF THE PROCESS FOR IDENTIFYING CANDIDATE SUBSTANCE FOR REGIONAL ACTION UNDER THE SOUND MANAGEMENT OF CHEMICALS INITIATIVE (Jun. 2001).

286. CEC, NOMINATION DOSSIER ON LEAD (1998).

287. Interview Numbers CN-G-101 (Mar. 12, 2003); US-G-100 (Mar. 11, 2003); US-G-76 (Feb. 24, 2003); MX-G-122 (Apr. 4, 2003).

288. CEC, DECISION DOCUMENT ON LEAD UNDER THE SOUND MANAGEMENT OF CHEMICALS INITIATIVE (2003). *See also* JPAC ADVICE TO COUNCIL 00-06 (Jul 6, 2000), recommending development of a NARAP for lead.

not been made.²⁸⁹

Similarly, lindane was first considered a candidate for action under the SMOC in 1998²⁹⁰ and the governments agreed to develop a NARAP in 2002,²⁹¹ which was completed and adopted by the Council in 2006.²⁹² The delay in preparing the lindane NARAP was due in part to industry opposition in the U.S.²⁹³ The Council also authorized preparation of a NARAP for dioxins, furans, and hexachlorobenzene in 1999,²⁹⁴ and a draft was developed in 2002.²⁹⁵ However, the U.S. delayed the finalization of this NARAP²⁹⁶ and in 2008, the Council decided to develop a strategy rather than a NARAP for these chemicals.²⁹⁷

The SMOC has also served to help the countries develop regional policy positions on toxic substances for international fora. According to some officials, the SMOC has also helped to build capacity and foster more openness, transparency, and public participation in environmental decision-making in Mexico.²⁹⁸ From a broader institutional perspective, the SMOC also served as an important first initiative for demonstrating the potential of the CEC to foster voluntary environmental cooperation between the countries.²⁹⁹ This was particularly important during the early

289. See, e.g., Luke Trip, *Case Study: The North American Regional Program on Sound Management of Chemicals*, http://web.idrc.ca/en/ev-83361-201-1-DO_TOPIC.html (last visited Oct. 2, 2011), stating that the lead was being evaluated as a candidate for a NARAP in 2005.

290. CEC, DECISION DOCUMENT ON LINDANE UNDER THE PROCESS FOR IDENTIFYING CANDIDATE SUBSTANCES FOR REGIONAL ACTION UNDER THE SOUND MANAGEMENT OF CHEMICALS INITIATIVE (2000).

291. CEC, COUNCIL RESOLUTION: 02-07, DEVELOPING A NORTH AMERICAN REGIONAL ACTION PLAN (NARAP) ON LINDANE (2002).

292. CEC, COUNCIL RESOLUTION 06-12, ADOPTING THE NORTH AMERICAN REGIONAL ACTION PLAN (NARAP) ON LINDANE AND OTHER HEXACHLOROCYCLOHEXANE ISOMERS.

293. Interview Numbers MX-C-55 (Feb. 4, 2003); US-G-100 (Mar. 11, 2003).

294. CEC, COUNCIL RESOLUTION 99-01, DEVELOPING A NORTH AMERICAN REGIONAL ACTION PLAN FOR DIOXINS AND FURANS, AND HEXACHLOROBENZENE (1999).

295. CEC, REPORT OF THE ACTING EXECUTIVE DIRECTOR. COMMISSION FOR ENVIRONMENTAL COOPERATION. TENTH REGULAR SESSION OF THE CEC COUNCIL (2003).

296. *Id.*

297. *Council Resolution: 08-06, Instruction to the Sound Management of Chemicals Working Group of the Commission for Environmental Cooperation to promote the sustained sound management of chemicals in North America*, CEC (June 26, 2008), <http://www.cec.org/Page.asp?PageID=122&ContentID=949>.

298. Interview Numbers US-G-100 (Mar. 11, 2003); MX-G-122 (Apr. 4, 2003); CN-P-69 (Feb. 14, 2003); US-G-75 (Feb. 22, 2003).

299. Interview Numbers MX-G-122 (Apr. 4, 2003); US-G-75 (Feb. 22, 2003).

years of the CEC when there was so much contention surrounding implementation of its other mandates related to enforcement of environmental laws.³⁰⁰

Overall, the SMOC has been a very ambitious initiative that has received considerable funding and in-kind contributions from the three governments. The high level of activity under the SMOC created the impression that governments were making great strides in taking action on the targeted chemicals, however, it appears that these actions were minimal and would have occurred anyway without the SMOC. Overall, the SMOC has had limited impact on policy or government action since it was established in 1995. Numerous government and SMOC working group officials felt that the SMOC's greatest contributions were more procedural than substantive; it has served to strengthen communications, facilitate sharing of information, and raise awareness between the countries.

2. *North American Bird Conservation Initiative*

The North American Bird Conservation Initiative ("NABCI"), first proposed in 1995 as a project to identify Important Bird Areas³⁰¹ in North America, evolved into a tri-national effort to promote integrated conservation of all birds,³⁰² both migratory and non-migratory. Under NABCI, the U.S., Mexico, and Canada have developed an overall framework for integrated bird conservation, including identification of Bird Conservation Regions ("BCRs") across the entire continent; established institutional mechanisms for implementation of the framework, including trinational and national steering committees and national coordinators, and the initiation of a set of tri-national pilot projects linking bird conservation efforts in the countries.³⁰³ In 2005, CEC ended funding for the NABCI committees and the administration of the initiative has since been wholly supported by the three countries.³⁰⁴

300. Interview Numbers CN-G-66 (Feb. 12, 2003); US-C-14 (Jul. 18, 2001); US-C-51 (Jan. 27, 2003).

301. Important Bird Areas are conservation units developed by BirdLife International as a mechanism for bird conservation that have been used in many countries around the world; CEC, NORTH AMERICAN IMPORTANT BIRD AREAS, A DIRECTORY OF 150 KEY CONSERVATION SITES (1999) [hereinafter CEC IMPORTANT BIRD AREAS].

302. *Id.* There are approximately 1400 species of birds that regularly inhabit North America; over 1000 species reside in Mexico for all or part of their life, over 800 species in the U.S., and over 600 species in Canada; more than 250 species are migratory.

303. ART MARTELL, HUMBERTO BERLANGA, DAVID PASHLEY, & JURGEN HOTH, REVIEW OF PROGRESS OF THE NORTH AMERICAN BIRD CONSERVATION INITIATIVE; CEC, NORTH AMERICAN BIRD CONSERVATION INITIATIVE (2000).

304. CEC provided funding for NABCI committees up through 2004. *See* CEC,

According to almost all of the officials interviewed for this assessment, the NABCI did contribute to changes in policy and government actions related to bird conservation in the three countries. The most frequently cited impact has been the change in perspectives and approaches to bird conservation to encompass all types of birds and habitats, as opposed to just migratory game birds and wetlands. Historically, bird conservation in North America has been focused on game birds, in particular waterfowl. This conservation has been undertaken largely at the insistence of the U.S. and has been achieved principally through implementation of the North American Waterfowl Management Plan³⁰⁵ ("NAWMP") with funding from the North American Wetlands Conservation Act³⁰⁶ ("NAWCA"). However, the NABCI served to foster interest and support for integrated bird conservation, a marked departure from past bird conservation efforts.

Another achievement of the NABCI was the development of BCRs³⁰⁷ in the three countries which provide a consistent spatial framework for bird conservation in North America and were based on a scale-flexible, hierarchical framework of nested ecological units previously developed by the countries through the CEC.³⁰⁸ According to some officials both inside and outside of government, "the NABCI was key to identifying bird conservation areas or regions that cut across

NORTH AMERICAN AGENDA FOR ACTION 2003-2005, *supra* note 31; NORTH AMERICAN AGENDA FOR ACTION 2004-2006, *supra* note 31; OPERATIONAL PLAN: 2004-2006, *supra* note 31; OPERATIONAL PLAN: 2006-2008, *supra* note 31; PROPOSED BUDGET FOR 2005 CEC WORK PROGRAM (on file with author).

305. *See, e.g.*, U.S. DEPARTMENT OF THE INTERIOR & ENVIRONMENT CANADA, NORTH AMERICAN WATERFOWL MANAGEMENT PLAN (1986); U.S. DEPARTMENT OF THE INTERIOR, ENVIRONMENT CANADA, & SEMARNAP, 1994 UPDATE TO THE NORTH AMERICAN WATERFOWL MANAGEMENT PLAN. EXPANDING THE COMMITMENT (1994); U.S. DEPARTMENT OF THE INTERIOR, ENVIRONMENT CANADA, & SEMARNAP, 1998 UPDATE TO THE NORTH AMERICAN WATERFOWL MANAGEMENT PLAN, EXPANDING THE VISION (1998); US DEPARTMENT OF THE INTERIOR, ENVIRONMENT CANADA, SEMARNAP, 2004 STRATEGIC GUIDANCE, NORTH AMERICAN WATERFOWL MANAGEMENT PLAN, STRENGTHENING THE BIOLOGICAL FOUNDATION (2004).

306. The North American Wetlands Conservation Act, 103 Stat. 1968; 16 U.S.C. 4401-4412, Pub. L. No. 101-233, enacted Dec. 13, 1989, is a U.S. law that provides funding for implementation of the NAWMP. Between 1986 and 2009, more than \$4.5 billion in federal and matching funds were invested to protect, restore, and/or enhance over 15.7 million acres of waterfowl habitat in North America under the NAWMP, *see* U.S. Fish and Wildlife Service, <http://www.fws.gov/birdhabitat/nawmp/index.shtml>.

307. BCRs are ecologically-based conservation units with similar biotic and abiotic characteristics; David Pashley, *An Introduction to the NABCI Bird Conservation Regions*, 33 BIRDING 30 (2001).

308. CEC, ECOLOGICAL REGIONS OF NORTH AMERICA: TOWARD A COMMON PERSPECTIVE (1997).

boundaries to facilitate landscape planning over the North American region³⁰⁹ and the resultant BCRs have “fundamentally changed perspectives on bird conservation in North America and how it is delivered.”³¹⁰

Since NABCI was established, there has been a considerable effort in the three countries to better integrate the waterfowl conservation efforts with other non-game and non-migratory bird conservation programs, such as the North American Colonial Waterbird Conservation Plan, Partners in Flight, and Western Hemisphere Shorebird Reserve Network.³¹¹ The primary institutional mechanisms for promoting this integration have been the national coordinators for NABCI, fully or partially funded in the initial years by the CEC, and national NABCI steering committees³¹² established in each country.³¹³

In the U.S., the government instituted a policy change that redefined the scope of bird conservation within the existing habitat conservation units established under the NAWMP, known as Joint Ventures, to include species other than waterfowl.³¹⁴ As a result of this policy change, at least nine out of the eighteen existing Joint Ventures³¹⁵ in the U.S. have adopted integrated bird conservation strategies and are developing projects for conservation of non-waterfowl species. In addition, some of the areas are also utilizing the BCRs³¹⁶ for conservation planning and evaluation as well as to identify birds likely to become candidates for listing under the Endangered Species Act.³¹⁷

In Canada, the NABCI has likewise fostered a change in attitude

309. Interview Number US-G-38 (Jan. 8, 2003).

310. Interview Number CN-N-47 (Jan. 20, 2003).

311. Paul Baicich, *Is there a NABCI in our future?* 31 *BIRDING* 210 (1999); Matt Schlag-Mendenhall, *Could Ducks Save the Rest of Our Birds?* *BIRDER'S WORLD* 55 (2001); Andrews & Andres, *supra* note 57.

312. In Canada, an existing institutional mechanism, the North American Wetlands Conservation Council in Canada, which was responsible for overseeing the NAWMP, expanded its mandate and membership in 2000 and became the NABCI Canada Council and oversees the NABCI in Canada, *see* <http://www.terreshumidescanada.org/main.html>.

313. MARTELL, ET AL., *supra* note 303.

314. U.S. Department of the Interior, U.S. Fish and Wildlife Service, Director's Order No. 146, Joint Venture Administration (2002) (on file with author).

315. A joint venture is a self-directed partnership of agencies, organizations, corporations, tribes, or individuals that has formally accepted the responsibility of implementing national or international bird conservation plans within a specific geographic area or for a specific taxonomic group, *see id.*

316. Joint Venture, <http://www.fws.gov/birdhabitat/jointventures/index.shtm> (last visited Oct. 21, 2011).

317. U.S. Department of the Interior, U.S. Fish and Wildlife Service Birds of Conservation Concern (2002) (on file with author).

and generated greater buy-in for integrated bird conservation at higher levels in government and throughout the bird conservation community. According to some officials inside and outside of the government, these changes in perspectives and support have led to multi-bird, multi-habitat conservation efforts being undertaken throughout Canada. These conservation efforts, however, are still subject to the funding constraints associated with waterfowl conservation; therefore, the actual on-the-ground integrated bird conservation may be limited. These officials, however, did not feel the impacts of the NABCI had been as far-reaching in Canada as in the U.S. because there is, in general, less political support and interest in Canada for bird conservation and greater resistance to change by the old guard associated with waterfowl conservation.

The changes in Mexico due to the NABCI are a little more difficult gauge. According to some government officials and others familiar with the NABCI in the three countries, Mexico has probably embraced the NABCI principles of integrated bird conservation to the greatest extent because Mexico has traditionally taken a more holistic approach to conservation of biodiversity, using an ecosystem-based rather a taxonomic-based approach. However, bird conservation is in its infancy in Mexico; there is very little capacity, no pre-existing bird conservation programs to leverage, and a lack of constituencies and political support, thus actual on- the- ground conservation has been limited.

Nonetheless, the NABCI has served to raise the profile of bird conservation at the national level and bring together all of key stakeholders in the bird conservation community within Mexico, as well as establish some basic institutional structures for planning and implementation of bird conservation at the national level. In addition, the identification of Important Bird Areas has helped Mexico develop a systematic approach to developing domestic priorities for bird conservation and the demonstration projects have helped build a limited amount of capacity in Mexico.

Considering these changes in bird conservation within a broader historical context, the U.S., Mexico, and Canada have been cooperating on protection of migratory birds since the early twentieth century under the Convention for the Protection of Migratory Birds and subsequent treaties.³¹⁸ Large scale on-the-ground conservation was initiated starting in the 1980s with a focus on migratory waterfowl habitat under the NAWMP.³¹⁹ Starting in the early 1990s, the focus of conservation efforts

318. U.S. DEPARTMENT OF INTERIOR AND ENVIRONMENT CANADA, *supra* note 305.

319. *Id.*

expanded to include integrated bird conservation of all species;³²⁰ this expansion is reflected in the establishment of the Partners in Flight and Western Hemisphere Shorebird Reserve Network initiatives and efforts to coordinate these initiatives with the NAWMP.³²¹

By the mid-1990s, the bird conservation community, at least in the U.S., was already contemplating integrated bird conservation, but it did not have an established strategy or framework. The CEC proposal for trilateral cooperation on bird conservation coincided with these initial efforts to promote integrated bird conservation and the CEC provided a forum for developing a framework and strategy. According to some government officials and others who have worked on the NABCI, the advent of integrated bird conservation within North America would have occurred anyway, but, as one government official noted, it would have “had a more difficult birth and would have taken much longer.”³²²

Other government and CEC officials felt that although integrated bird conservation might have occurred without NABCI, it would have been different.³²³ For example, there may have been less attention given to endemic species compared to migratory species because the U.S. and Canada probably wouldn’t have been made aware of the endemic species of Mexico and supported efforts to conserve these species, while Mexico would not have worked as much on migratory species. The U.S. and Canada had historically been interested in migratory species, which had limited benefit for Mexico, where the majority of birds are endemic.³²⁴

320. See, e.g., Herb Raffaele, Memorandum on North American Bird Conservation Discussion, U.S. Department of the Interior, U.S. Fish and Wildlife Service (Dec. 13, 1995) (on file with author).

321. See generally, David Pashley & Rick Warhurst, *Conservation Planning in the Prairie Pothole Region of the United States: Integration Between an Existing Waterfowl Plan and an Emerging Non-game Bird Model*, in STRATEGIES FOR BIRD CONSERVATION: THE PARTNERS IN FLIGHT PLANNING PROCESS (Rick Bonney, David N. Pashley, Robert J. Cooper, & Larry Niles, eds. 1995) [hereinafter STRATEGIES FOR BIRD CONSERVATION], <http://www.birds.cornell.edu/pifcapemay/pashleywarhurst.htm>; Cynthia R. Brown, Charles Baxter, & David N. Pashley, *The Ecological Basis for the Conservation of Migratory Birds in the Mississippi Alluvial Valley*, in STRATEGIES FOR BIRD CONSERVATION, available at <http://www.birds.cornell.edu/pifcapemay/brown.htm>.

322. Interview Number US-G-40 (Jan. 8, 2003).

323. Interview Numbers MX-G113 (Mar. 28, 2003); MX-C-59 (Feb. 6, 2003); CN-G-79 (Feb. 23, 2003); US-G-37 (Jan. 8, 2003).

324. Rosa Ma. Vidal, Humberto Berlanga, & María del Coro Arizmendi, *Important Bird Areas AMERICAS Mexico*, in IMPORTANT BIRD AREAS AMERICAS - PRIORITY SITES FOR BIODIVERSITY CONSERVATION, 269 (C. Devenish, D. F. Díaz Fernández, R. P. Clay, I. Davidson & I. Yépez Zabala, eds. 2009), <http://www.birdlife.org/datazone/userfiles/file/IBAs/AmCntryPDFs/Mexico.pdf> (last visited Oct. 21, 2011).

The inclusion of all birds under NABCI helped ensure that Mexico's national priorities for bird conservation were given equal consideration in the trilateral cooperation.

Still other officials felt that without the NABCI, the programs for bird conservation in the three countries wouldn't have been as well integrated in general. The U.S. and Canada were already working on expanding conservation programs, but would have continued on the same path of individual programs. The Partners in Flight, for example, would have become sophisticated, but would have developed in isolation from the other conservation programs. Another official from a bird conservation organization felt that the international aspect of the NABCI would not have developed at all; bird conservation efforts would have remained largely bilateral in nature. Thus, it is unlikely that the trilateral demonstration projects linking conservation efforts in the three countries would have occurred.

Overall, the NABCI has helped to foster increased awareness and support for integrated bird conservation; it has helped breakdown artificial barriers between game and non-game bird conservation and to build bridges between the different factions within the bird conservation community. As a result, there has been a major change in mindset and conservation culture, facilitating a shift in the approach to bird conservation efforts to encompass all birds and all habitats. The end result has been better coordination between different bird conservation groups and programs. These changes appear to be most pronounced in the U.S., which has the strongest constituencies for bird conservation and the greatest resources. There are mixed views on whether the outcomes realized under the NABCI would have been the same without the initiative.

3. Enforcement and Compliance Cooperation Forum

The Enforcement and Compliance Cooperation Forum, established in 1995, consisted of two working groups of enforcement officials: a Working Group on Environmental Enforcement and Compliance Cooperation ("EWG"), that is primarily concerned with brown environmental enforcement issues, such as those associated with hazardous waste and toxic substances, and a North American Wildlife Enforcement Working Group ("NAWEG"),³²⁵ focused on wildlife trafficking under the Convention on International Trade in Endangered

325. The North American Wildlife Enforcement Working Group was a pre-existing group established under the Canada/Mexico/U.S. Trilateral Committee for Wildlife and Ecosystem Conservation and Management.

Species (“CITES”).³²⁶ Through these working groups, the governments pursue a range of activities to promote effective enforcement of laws, build enforcement capacity, and report on domestic enforcement activities.³²⁷

When the enforcement and compliance forum was established, it was given a relatively broad mandate. Over the years, the EWG has worked on a variety of issues, including the transboundary movement and tracking of hazardous wastes, indicators of effective environmental enforcement, environmental management systems, trafficking in illegal substances, and environmentally sound management of hazardous wastes.³²⁸ In addition, the EWG compiled information on enforcement activities of the governments for the annual report and served as a forum for exchanging intelligence on illegal activities that may require bilateral or trilateral coordination.

According to numerous government and CEC officials, the EWG helped to improve communications and information sharing between the governments as well as build some capacity, primarily in Mexico, but beyond that, it has had no noticeable impact on enforcement programs in the three countries. The EWG’s work on trans-boundary shipments of hazardous waste and environmentally sound management of hazardous waste has potential to improve the management of these materials, but these improvements have yet to be realized, although the governments largely ignored earlier work on hazardous waste.³²⁹

Compared to the EWG, the NAWEG has been more focused in its cooperative work agenda, largely because it had originally been established outside of the context of the CEC and had a more clearly defined focus and purpose from the onset. The NAWEG sought an

326. Convention on International Trade in Endangered Species of Wild Flora and Fauna, Mar. 3, 1973, 12 I.L.M. 1085; *see generally*, 1995 CEC ANNUAL REPORT, *supra* note 31; 1995 PROGRAM REPORT, *supra* note 31; CEC, COUNCIL RESOLUTION No. 96-06. RESOLUTION TO ESTABLISH THE NORTH AMERICAN WORKING GROUP ON ENVIRONMENTAL ENFORCEMENT AND COMPLIANCE COOPERATION (1996) [hereinafter RESOLUTION No. 96-06].

327. *See, e.g.*, 1995 PROGRAM REPORT, *supra* note 31.

328. *See, e.g.*, CEC, VOLUNTARY MEASURES TO ENSURE ENVIRONMENTAL COMPLIANCE, A REVIEW AND ANALYSIS OF NORTH AMERICAN INITIATIVES (1998); CEC, TRACKING AND ENFORCEMENT OF TRANSBORDER HAZARDOUS WASTE SHIPMENTS IN NORTH AMERICA (1999); CEC, INDICATORS OF EFFECTIVE ENFORCEMENT (1999); CEC, IMPROVING ENVIRONMENTAL PERFORMANCE AND COMPLIANCE, 10 ELEMENTS OF EFFECTIVE ENVIRONMENTAL MANAGEMENT SYSTEMS (2000); CEC, CROSSING THE BORDER, OPPORTUNITIES TO IMPROVE TRACKING OF TRANSBOUNDARY HAZARDOUS WASTE SHIPMENTS IN NORTH AMERICA (2004).

329. CEC, TRACKING AND ENFORCEMENT OF TRANSBORDER HAZARDOUS WASTE SHIPMENTS IN NORTH AMERICA (1999).

affiliation with the CEC solely to have access to its resources. Since 1995, the NAWEG has undertaken a series of training workshops for enforcement and customs officials focused on trafficking of endangered species under CITES, training on wildlife forensics, and other similar capacity building activities.³³⁰ In addition to this training, the NAWEG has also served as a forum for exchanging intelligence on illegal activities that may require bilateral or trilateral coordination.

Most government and CEC officials familiar with the enforcement working groups generally viewed the NAWEG as being more effective than the EWG.³³¹ The NAWEG has created an effective network of enforcement professional for CITES, improved communications and information sharing, and helped build capacity, especially in Mexico. The NAWEG has also been useful for identifying weaknesses in domestic enforcement systems, such as those in Canada's import/export controls at its borders. However, the goal of increased cooperation on CITES prosecutions between the countries, has not materialized. According to several government and CEC officials, the NAWEG would have undertaken its activities without the CEC, but it would have struggled due to lack of resources.

Considering enforcement within a broader context, the three countries have cooperated on enforcement in the past, but largely on a bilateral basis, with the U.S. working with its neighbors to the north and south. This cooperation has occurred through various mechanisms, such as Interpol, Mutual Legal Assistance Treaties, and other international agreements governing border environmental issues, like the La Paz Agreement with Mexico and the Agreement Concerning the Transboundary Movement of Hazardous Wastes with Canada.³³² Enforcement cooperation has also occurred through other informal, ad-hoc bilateral exchanges. Overall, officials interviewed for this research felt that the enforcement cooperation under the CEC initiative would have occurred anyway and there would not have been any significant differences in outcomes.

330. See, e.g., CEC, NORTH AMERICAN AGENDA FOR ACTION 2003-2005, *supra* note 31.

331. Interview Numbers CN-G-71 (Feb. 13, 2003); MX-G-20 (Aug. 6, 2001); US-G-87 (Mar. 3, 2003); CN-C-9 (Jul. 17, 2001).

332. Scott C. Fulton & Lawrence I. Sperlring, The Network of Environmental Enforcement and Compliance Cooperation in North America and the Western Hemisphere, 30 INT'L LAW. 111 (1996); BORDER 2012, *supra* note 172; Agreement on Cooperation for the Protection and Improvement of the Environment and Transboundary Problems, also known as the La Paz agreement, Aug. 14, 1983, U.S.-Mex. T.I.A.S. No. 10827; Agreement Concerning the Transboundary Movement of Hazardous Wastes, Oct. 28, 1986, U.S.-Can., T.I.A.S. No. 11099.

a. Survey Results

According to survey respondents, the degree to which the CEC is achieving its objective of facilitating voluntary environmental cooperation overall between the U.S., Mexico, and Canada was ranked, through its numerous cooperative environmental initiatives including the three discussed above, was ranked, on average, 3.1 on a scale of 1 to 5 (n = 253),³³³ indicating that this objective is being moderately achieved. Figure 8 illustrates the distribution of survey responses, by nationality of the respondent.³³⁴

Survey respondents were also asked whether some CEC cooperative programs were more effective than others; eleven respondents felt that there was no difference in effectiveness of the cooperative programs, while 105 of the respondents indicated that some programs were more effective.³³⁵ In a follow-up to that question, respondents were then asked to identify which programs were more effective. Categorizing the open-ended responses under the CEC's four core programmatic areas: seventy respondents identified Pollutants and Health or one of its initiatives as being the most effective, twenty-six respondents identified Conservation of Biodiversity or one of its initiatives, fourteen respondents identified Law and Policy or one of its initiatives, and thirteen respondents identified Environment, Economy, and Trade or one of its' initiatives.³³⁶

The top three individual initiatives identified were: SMOC (seventeen respondents), Pollutant Release and Transfer Registries (twelve respondents), and NAWEG (five respondents).³³⁷ According to respondents that identified specific programs or initiatives as being more effective, many indicated that the reason the program was effective was because it had clear, achievable goals or it produced concrete or tangible results, such as the reduction in the usage of DDT in Mexico or providing hands-on training and capacity building. Other survey respondents noted that the reason some programs were more effective was because the specific issues being addressed by the program were not politically sensitive.

333. CEC Effectiveness Survey, *supra* note 94, Question 7. Likert scale 1 to 5: 1 = not being achieved, 3 = moderately being achieved, 5 = completely being achieved.

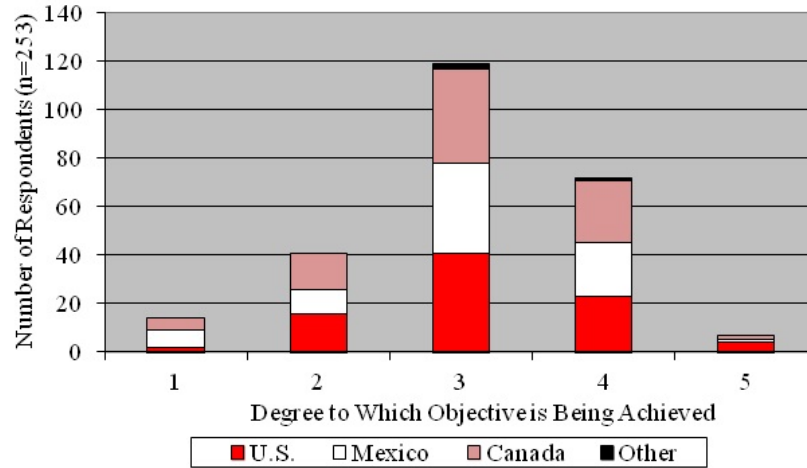
334. CEC Effectiveness Survey, *supra* note 94, Questions 2 and 7

335. CEC Effectiveness Survey, *supra* note 94, Question 7.

336. *Id.*

337. *Id.*

Figure 8: Facilitating Voluntary Environmental Cooperation (n=253)



VIII. CONCLUSIONS

Over the past 15 years, the U.S., Mexico, and Canada have invested over \$140 million into the work of the CEC, an international institution created to address the environmental effects of NAFTA. An empirical assessment of the CEC indicates that its overall effectiveness in achieving its principal mandates and fostering tangible changes in policy or government action has been quite limited. The CEC has been the most effective in facilitating cooperation between the three NAFTA countries, somewhat less effective in improving the enforcement of environmental laws through the citizen submission process, minimally effective in undertaking independent reporting of environmental issues of regional significance, and not effective in integrating trade and environment in support of the goals of NAFTA.

Historically, the majority of the CEC's work has been focused on environmental cooperative initiatives. An in-depth review of four long-running initiatives—SMOC, NABCI, Enforcement and Compliance Cooperation Forum, and NAFTA Environmental Effects—indicates that the effectiveness of these initiatives has been mixed. The SMOC appears to have had minimal impact on policy or government action related to toxic substance usage that would not have occurred in the absence of the CEC while the NABCI appears to have had tangible impacts on policy and government action related to bird conservation in the three countries. The work of the EWG and NAWEG appears to have had very limited

impact on overall enforcement programs in the three countries and the CEC work to evaluate the environmental impacts of NAFTA has generated some credible research on the effects of trade and investment liberalization; however, the studies have not had any major impact on policy or government action.

According to officials both inside and outside of the governments, many of the changes that could be attributed to the CEC cooperative initiatives would probably have occurred anyway. Thus, the CEC appears to have provided a convenient forum for pursuing cooperation, but in its absence, the countries still would likely have taken some of the same actions. Notwithstanding the limited substantive impacts of these initiatives on policies or government actions, the initiatives did appear to foster procedural changes, such as improving communication, information sharing, and coordination between the countries. Considering both the substantive and procedural impacts of the CEC cooperative initiatives, the CEC appears to have been moderately effective at promoting environmental cooperation to improve domestic environmental programs, with the greatest impact likely occurring in Mexico.

The two institutional mechanisms established to redress the lax enforcement of environmental laws—the state-to-state consultation and dispute resolution process and citizen submission process—have had limited to no impact on enforcement levels in the three countries. The consultation and dispute resolution process has never been initiated. Establishing this process under the CEC was a political imperative in the U.S., however, the process is a historical artifact and is unlikely to ever have an impact on enforcement levels in the three countries.

The citizen submission process has had limited effectiveness in improving enforcement levels in specific instances, but its impact on enforcement writ large in the countries has been insignificant. The process appears to be most useful for validating the claims of the submitters, increasing their credibility and allowing them to more effectively advance their claims within a broader context. The factual records also serve to establish a baseline for discussion, creating a compilation of facts derived from all interested stakeholders. The process has not been used extensively, however, which may be due to the fact that it is very time-consuming, onerous, and overly legalistic, and an inherently weak mechanism for influencing government behavior.

The Secretariat's independent reports appear to have raised awareness of specific environmental issues to varying degrees and prompted or contributed to tangible government actions on a limited basis; however, the up-take or long-term impact of these reports has been quite mixed and limited, and in some instances, non-existent due to the

controversial nature of the content of some of the reports. The independent reporting mandate was established to provide the environmental community a mechanism for scrutinizing environmental issues that otherwise might not receive attention from the governments; however it does not appear to be widely known or used by the environmentalists.

The CEC's efforts to integrate trade and environment during NAFTA implementation have not been effective. There has been no meaningful coordination between the CEC Council and the NAFTA FTC; the limited efforts of the CEC to integrate trade and environment have largely been ignored or marginalized. The lack of effectiveness in integrating trade and environment under NAFTA is largely due to the fact that the linkages between the CEC and the FTC established under the NAAEC are limited in scope, voluntary in nature, and designed to give almost total deference to the FTC.

This empirical assessment provides a snapshot of the CEC's effectiveness in carrying out its principal mandates. In general, the CEC is most effective in facilitating environmental cooperation, the mandate that was least controversial when the CEC was created and that requires the Secretariat to function in a more traditional role of convener and coordinator with minimal independent decision-making authorities. The CEC is less effective in carrying out its other three mandates, all of which were controversial when it was created, and some of which require the Secretariat to exercise its independent decision-making authorities, or deal with politically sensitive issues or infringe on the sovereignty of the countries.

Given that the CEC is a creation of sovereign states, it is not surprising that its operation would reflect and be sensitive to the interests and concerns of the three countries. The inclusion of unprecedented authorities or mandates under the CEC, such as the citizen submission process, was a direct result of the strong political pressure from the environmental community in the U.S. when the NAAEC was negotiated. In order for those aspects of the CEC to be effective, there needs to be continued political pressure from external stakeholders. Unfortunately, the strong political support for the CEC that existed when it was created and during its initial years of operation has been greatly diminished over the years, limiting the effectiveness of many aspects of the CEC.

APPENDIX A:

Table 1: Summary of the CEC's Cooperative Environmental Initiatives, 1995 to 2010

Areas and Land Holdings																			
Ecosystem Monitoring				X	X														
Conservation of Migratory and Transboundary Species				X	X														
Global Programme for Protection of Marine Environment from Land-based Activities							X												
Strategic Directions & Cooperation for Conservation of Biodiversity				X	X	X	X	X											
Mapping Marine and Estuarine Ecosystems				X		X	X												
North American Marine Protected Areas Network				X	X	X	X	X	X										
Conserving Species and Spaces of Common Concern						X	X	X	X										
Closing Pathways of Aquatic Invasive Species						X	X	X									X		
Grassland Ecosystem Network									X										
Building Local Capacity for Integrated Ecosystem Management to Conserve Critical Species and Spaces													X	X					
Guidelines for Risk Assessment of Invasive													X	X					

Facilitating Energy Efficiency in North America	X	X																	
Cooperation on Climate Change and Green House Gas Emissions	X	X	X																
Climate Change Impact on Transboundary Water Resources		X																	
Environmental Training and Education	X	X																	
Cooperation/Capacity Building on Pollution Prevention	X	X	X	X	X	X	X	X	X	X									
Technology Clearinghouse	X	X	X	X															
Science Liaison, Cooperation and Coordination		X																	
Capacity Building in Environmental Management in Guanajuato (Silva Reservoir)		X																	
North American Trade and Transportation Corridors					X	X	X	X											
Technical and Strategic Tools for Improved Air Quality					X	X	X	X											
Children's Health and the Environment						X	X	X	X	X									
Enhancing North America Air Quality Management													X	X	X	X	X		
Monitoring and Assessing Pollutants Across North America													X	X	X	X	X		

Cooperative Initiative	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0			

Economy, Environment, and Trade																			
Methodology for Assessing Impacts/NAFTA Environmental Effects	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X		
Economic Instruments for Environmental Protection	X	X																	
Emerging Environmental Trends in North America				X	X	X	X	X											
Sustainable Tourism in Natural Areas				X	X	X													
Shared Approaches to Byproduct Synergy				X															
Linkages between Trade and Species Conservation				X															
Linkages between Environment and Trade				X															
Facilitating Conservation of Biodiversity related to Trade in Wildlife Species					X	X													
Sustainable Use of Natural Resources/Agriculture					X														
Promoting Trade in Green Goods				X															
Supporting Environmental Protection and Conservation through Green Goods and Services								X	X										
Financing in Support of Environmental Protection and Conservation						X		X	X										
Trade in Environmentally-Preferable Goods and Services						X			X										
Market and Financial Mechanisms in Support of the Environment/Sustainability								X											
Market Mechanisms for Carbon Sequestration, Energy Efficiency, and Renewable Energy									X										
Environmental Labeling											X								
Greening Supply Chains in North America																	X		
Harnessing Market Forces for Sustainability													X	X					

Economic Instruments	X																		
Environmental Laboratory Standards	X																		
Natural Resource Accounting	X																		
Cooperation between Environmental Laboratories	X				X	X		X											
New Approaches for Improving Environmental Performance			X																
Indicators of Effective Enforcement			X	X	X	X													
Environmental Management Systems to Promote Compliance				X			X	X	X										
Tracking Transboundary Hazardous Waste								X	X	X									
Sustainable Use and Conservation of Freshwater in North America								X	X										
Enforcement and Compliance Capacity Building							X												
Enforcement and Compliance Reporting							X	X											
Comparative Report on Environmental Standards							X	X	X										
Trade and Enforcement of Environmental Laws												X	X	X	X	X			
Improving Private and Public Sector Environmental Performance												X	X						

Environmental Information																			
Mapping North American Environmental Issues												X	X	X	X	X			
Managing CEC Environmental Information												X							