

Operational Plan of the Commission for Environmental Cooperation

2010



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This Operational Plan was approved by the Parties to the
North American Agreement on Environmental Cooperation.

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1 Introduction

The year 2010 marks the conclusion of the Commission for Environmental Cooperation's current 2005–2010 Strategic Plan. As such, 2010 is a transitional year—providing a timely opportunity to measure the progress of cooperative work undertaken since 2005—as well as to plan and begin implementation of a new strategic focus for the CEC.

As we bring long-standing projects to conclusion we look forward to significant accomplishments in 2010, including:

- A new CEC grant initiative for community-based environmental projects;
- Completion of a new Secretariat report on sustainable freight transportation in North America;
- Continue to build a North American foundation of consistent, comparable information on toxic chemicals of mutual concern, including the first comprehensive chemicals inventory for Mexico;
- With CEC support, Mexico's national environmental and human health monitoring network will begin to produce validated scientific data on levels of toxic substances, including Stockholm Convention pollutants and some toxic metals such as mercury. Two sites are currently being supported and a third is under consideration for inauguration;
- Completion of a special report on pollutant releases to North American water bodies from Canadian, Mexican and US industrial facilities;
- Enhanced public access to an electronic, integrated database and information on releases and transfers of toxic pollutants by industrial facilities across North America;
- Completion of a CEC effort to facilitate the electronic exchange of information concerning export request and import consent for hazardous wastes in North America, replacing the current paper-based approach to improve export/import data quality, enhance enforcement capabilities, support border security, and reduce administrative burdens;
- Updated key information on emissions from the electricity generating sector for use in advancing air quality initiatives, climate change mitigation strategies, and determination of environmental performance;
- A comprehensive report describing the nature and extent of trade flows in used electronic products within North America and between our region and the rest of the world;
- Support for the establishment of a network of marine Priority Conservation Areas with consideration of rapidly changing environmental conditions in the Atlantic to Caribbean region—shifting the CEC's focus to support conservation action in new, ecologically significant seascapes;
- Elaboration of approaches to help *green* new and existing building stocks, notably through exploration of regional standards and rating systems for energy efficiency;

- A new web-based portal to improve access to map-based environmental information and updates to the CEC's North American Environmental Atlas, including forests, watershed loadings of toxic chemicals, changes in land use and transboundary shipments of hazardous wastes; and
- Consistent information to facilitate sound air quality management decisions in all three countries.

Looking further ahead, our new strategic focus—for the next five years—has been broadly defined by the CEC Council in terms of: Healthy Communities and Ecosystems, Climate Change–Low-Carbon Economy, and Greening the North American Economy. Work will continue throughout this year to refine this strategic vision, culminating in the adoption of a new 2010–2015 Strategic Plan. It is expected that Council will direct new project work in support of these broad strategic priorities—beginning as soon as possible—setting a new agenda linking Canada, Mexico and the United States in support of cooperative action to protect and enhance the North American environment.

2 2010 Budget

The CEC's 2010 budget is based on total Party contributions of US\$9 million. The operational budget is complemented by staff time, expertise, and other in-kind contributions from the Parties and project partners.

2010 CEC Budget

DESCRIPTION	2010 budget (in thousands of Canadian dollars)	% of Total
<u>REVENUES</u>		
Parties' Contributions	9,360.0	
(US\$9,000 at 1.04/C\$. Exchange rate for 2010 and 2009 at 1.04/C\$.)		
Interest	50.0	
Surplus	3,125.0	
TOTAL REVENUES	12,535.0	
<u>EXPENSES</u>		
Cooperative Work Program		
Projects	5,632.7	
CEC Grants for Community Based Initiatives	450.0	
Development of Strategic Plan 2010-2015	458.0	
Mexico Liaison Office	345.4	
Managing CEC Environmental Information	106.0	
Planning, Monitoring, Evaluation and Reporting	90.0	
	7,082.1	56.50%
Secretariat report (Article 13)	330.0	2.63%
Submissions on Enforcement Matters (Articles 14 and 15)	798.0	6.37%
Council Support	307.0	2.45%
JPAC Support	475.6	3.79%
Communications	721.2	5.75%
Administration and Management		
Executive Director's Office	178.2	
External Administrative Support	256.0	
(Insurance, Audit, Fiscal Expertise, Banking, Legal)		
Relocation/orientation and Recruitment	150.0	
Operating expenses	1,085.0	
(Telecommunications, Rent, Operating Equipment, Office Supplies)		
Administration and Management Salaries	1,001.9	
	2,671.1	21.31%
Reserve for Unforeseen Needs	150.0	1.20%
TOTAL EXPENSES	12,535.0	100.00%

2010 CEC Cooperative Work Program

Project Title		2010 Budget (thousands of C\$)
Environmental Information		198.0
1	Mapping North American Environmental Issues	158.0
2	State of the Environment Reporting	40.0
Environment, Economy and Sustainability		340.0
3	Environmental Assessment of NAFTA	150
4	Supporting the Growth of Green Building	90.0
5	Trade Flows of North American Used Electronics	100.0
Enforcement and Compliance		465.0
6	Trade and the Enforcement of Environmental Laws	390.0
7	Strengthening Wildlife Enforcement	75.0
Pollutants and Health		1,667.0
8	Sound Management of Chemicals	553.0
9	Monitoring and Assessing Pollutants across North America	330.0
10	Enhancing North America Air Quality Management	400.0
11	Tracking Pollutant Releases and Transfers in North America	384.0
Biodiversity Conservation		515.0
12	Conserving Marine Species and Spaces of Common Concern	205.0
13	Conserving the Monarch Butterfly and Promoting Sustainable Livelihoods	85.0
14	Protecting Priority Conservation Areas from Alien Invasive Species	95.0
15	Conserving North American Grasslands	130.0
New Strategic Initiatives		600.0
16	New Strategic Initiatives	600.0
PROJECTS		3,785.0
WORK PROGRAM SALARIES & BENEFITS¹		1,847.7
TOTAL PROJECTS		5,632.7

¹ Includes program management and support staff, IT support, and meeting services.

3 Cooperative Work Program

3.1 Strategic Framework

This Operational Plan presents how the CEC's goals and objectives will be implemented through project activities and other initiatives in 2010. CEC Operational Plans are updated annually, with project planning focused on a multi-year horizon within the CEC's current 2005–2010 Strategic Plan (Appendix C). As this is the final year in that five-year plan, this year's project-level work is largely focused on bringing long-standing project activity to conclusion. Ongoing or new work will be considered in the development of the CEC's new 2010–2015 Strategic Plan and subsequent annual operating plans.

The strategic framework for the regular project activity described in this plan stems from the CEC Council's adoption, in 2004, of three broad priorities for the cooperative work program of the Commission (the 2004 Puebla Declaration-Appendix B):

- Information for Decision-making;
- Capacity Building; and
- Environment and Trade.

To advance these priorities, the Council adopted the *Strategic Plan for the Commission for Environmental Cooperation 2005–2010* (Appendix C). This plan embraces specific five-year goals and objectives as well as several multi-year initiatives to accomplish them.

The five-year goals under these priorities are to:

- support better decision-making by providing information on the key environmental challenges and opportunities facing North America;
- strengthen the capacities of the three countries to manage environmental issues of common concern; and
- promote policies and actions that provide mutual benefits for the environment, trade, and the economy.

The *Strategic Plan* and its initiatives are executed through the annual cooperative work program described here. The plan states, “*We intend to pursue these mutually supporting priorities as a comprehensive effort. Capacity-building is a built-in feature in projects under all three priorities; information projects will also contribute to the achievement of the trade and the environment objectives. We will design and manage the various projects under the priorities so as to strengthen these relationships.*”

Accordingly, projects described here generally support the achievement of one or more Puebla Declaration priorities. The Parties are guided in their adoption of annual projects by criteria that ensure projects support these priorities with tangible results and are North American in scope.

The Council, as the governing body of the CEC, approves and oversees the implementation of the work program. The Secretariat provides technical, administrative and operational support to the Council and to committees and groups established by the Council in the implementation of the cooperative work program. Throughout implementation of these projects, the Council and the Secretariat consult with the CEC's Joint Public Advisory Committee and stakeholders on an ongoing basis.

4 Secretariat Reports

With a view to helping the NAFTA partners improve the environmental performance of freight transportation in North America while contributing to the region's competitiveness, the CEC Secretariat will complete in 2010 its latest independent study under Article 13 of the North American Agreement on Environmental Cooperation.

Sustainable Freight Transportation in North America will profile the current environmental status of freight transportation in North America and look at opportunities for improving its environmental sustainability at a time of major infrastructural development along its trade corridors.

With the assistance of an international advisory group of representatives from transportation industries, nongovernmental organizations, and government agencies, the study will evaluate scenarios for improving the environmental performance of freight transportation by 2030 and recommend policy pathways to achieve those goals.

Those recommendations will encourage the development of policies and other measures to ensure that North American freight transportation systems are developed in an efficient, competitive and environmentally sustainable manner.

As with other reports initiated by the CEC Secretariat under Article 13, the freight transportation study will consider input from interested members of the public, as well as from the three NAFTA governments. The final report is expected by mid-2010.

For more information please go to <<http://www.cec.org/freight/>>.

5 Submissions on Enforcement Matters Process

The Submissions on Enforcement Matters (SEM) process enables the CEC Secretariat to consider citizen submissions on matters concerning effective enforcement of domestic environmental law in Canada, Mexico and the United States. The SEM process can facilitate an exchange of views between citizens and their governments on what effective enforcement of environmental law entails, and thereby plays a valuable role in advancing the public participation objectives of the NAAEC.

The CEC Secretariat endeavors to ensure timely processing of submissions, while also paying attention to detail and acting with great care in the consideration of citizen assertions and Party responses thereto. Moreover, the Secretariat must to the extent possible take steps to assure parties to the process that it is acting neutrally, fairly, and transparently. Of paramount importance is that the SEM process be understood by both the public and the Parties as non-adversarial, and aimed at encouraging an objective, facilitated exchange of views and information on the effective enforcement of environmental law in a particular set of circumstances. Where Factual Records are developed, they should draw upon all relevant factual information from a comprehensive range of sources.

The SEM budget for 2010 covers the processing of submissions, from their receipt through possible development and publication of Factual Records. The submissions budget was based on a projection of the existing workload at the end of 2009, plus a number of new submissions

estimated according to the historical average, using average costs at each stage of the submissions process. The budget also considers activities to promote the process with persons and organizations not presently engaged in the mechanism; collaborative efforts on timeliness and accountability of the SEM process; and official CEC participation in activities related to SEM.

Information on the SEM process is available at:

<<http://www.cec.org/citizen>>.

6 Institutional Support

The Secretariat provides support for and coordinates the operations of the Council to ensure that the directives and initiatives of the latter are carried out in a timely fashion. It also provides logistical and administrative support to JPAC.

6.1 Council

The Council, the governing body of the CEC, is composed of cabinet-level or equivalent environmental representatives of each country, or their designees. The Council convenes at least once a year in a regular session for the purpose of making decisions and developing recommendations on matters within the scope of the NAAEC, and to provide oversight on the operations of the CEC Secretariat. The Council's regular session also features a public meeting that provides an opportunity to exchange with the North American public on environmental issues of importance.

It is the Secretariat's responsibility to submit the annual operating plan and budget of the Commission for the approval of the Council and to ensure that its directives and initiatives are carried out in a timely way. This entails liaison throughout the year with the Council's designees as well as administrative and logistical arrangements relating to the planning and conduct of regular sessions of the Council and the Council's designees. In 2010, the regular session of the Council will be held in Mexico.

6.2 Joint Public Advisory Committee

The Joint Public Advisory Committee (JPAC) was established as a cooperative mechanism to advise the Council in its deliberations and to advise the Secretariat in its planning and activities. Its vision is to promote continental cooperation in ecosystem protection and sustainable economic development, and to ensure active public participation and transparency in the actions of the Commission.

JPAC is composed of fifteen citizens, five from each country. In 2010, JPAC will hold three public meetings, including one in Canada early in the year, one in Mexico in conjunction with the annual Council Session, and a third in the United States in the late fall. JPAC will also continue with its efforts to engage stakeholders across North America, with support from the Secretariat.

7 Communications

Raising awareness of North American environmental issues and their relation to trade and the economy is fundamental to the CEC's mission. Moreover, effective communication of the results of CEC activity is integral to the Commission's success. Specifically, the CEC's ability to support decision-making and to be appreciated as a source of quality information depends, in part, upon the extent to which good communication practices generate visibility and support for its work with audiences throughout North America.

CEC project descriptions describe the responsibility to communicate purpose, progress and results to stakeholders and participants. More generally, the CEC has an obligation to communicate the *bigger picture*—how and the extent to which we are meeting the broader goals and objectives of the Commission.

As such, the Secretariat executes a general communications strategy in accordance with the *Operational Plan* and Commission priorities. A communications planning calendar is updated periodically, while program-specific communication plans are reviewed quarterly with project managers.

The CEC pursues its communication goals through several means, including:

- The work and accomplishments of the CEC are communicated directly to general and specific audiences.
- To the greatest extent possible, the outputs of the CEC—including research, data sets, publications and other information products—are provided to the public, via the CEC website and other means.
- Publications and information are provided to the North American public in the three official languages, and in a manner that respects the different cultural environments encompassed within North America.
- The CEC opens its meetings and activities and facilitates public participation in the work of the Commission.
- Specific initiatives are designed to involve stakeholders in program work.
- Cooperation with the communications activities and apparatus of each of the Parties.

The CEC's communications strategy aims to achieve the following objectives:

1. The public, stakeholders and decision-makers are made aware that the CEC is an important agent in protecting the North American environment and supporting sustainable development.

A limited number of program activities and outputs are selected to illustrate this objective. Focus areas should be significant, interesting, new or unique. The result is a balanced set of examples that demonstrate how the CEC is providing a unique benefit in support of protecting the North American environment, and helping the Parties transcend borders in pursuit of cooperative solutions to shared environmental concerns.

Communication of these focus areas is designed to:

- Communicate tangible and compelling results and benefits, with measurable outputs and outcomes
- Improve/consolidate the *corporate* image/reputation of the CEC (the "CEC brand")
- Bundle initiatives (thematically/geographically)

Focus areas will change as projects develop and results accumulate; however, 2010 examples include:

- Sustainable freight transportation (Article 13 report)
- Thematic map layers and an interactive map viewer within the *North American Environmental Atlas*
- Data and information sharing on North American air quality, including an analysis of power plant emissions
- Updated industrial pollutant information and a special feature on releases to water as part of the *Taking Stock* interactive online database and report
- Tracking the movement of electronic and hazardous wastes
- Marine conservation work focused on new priority conservation areas within the Atlantic to Caribbean marine region
- Chemicals management and monitoring information, including a new chemicals inventory in Mexico

2. Maximize program success through effective communications with target audiences

A concise communications plan for each project as warranted is completed in accordance with the development of the *Operational Plan*. Primarily, these plans align project outputs with priority audiences and can include the following tactical options:

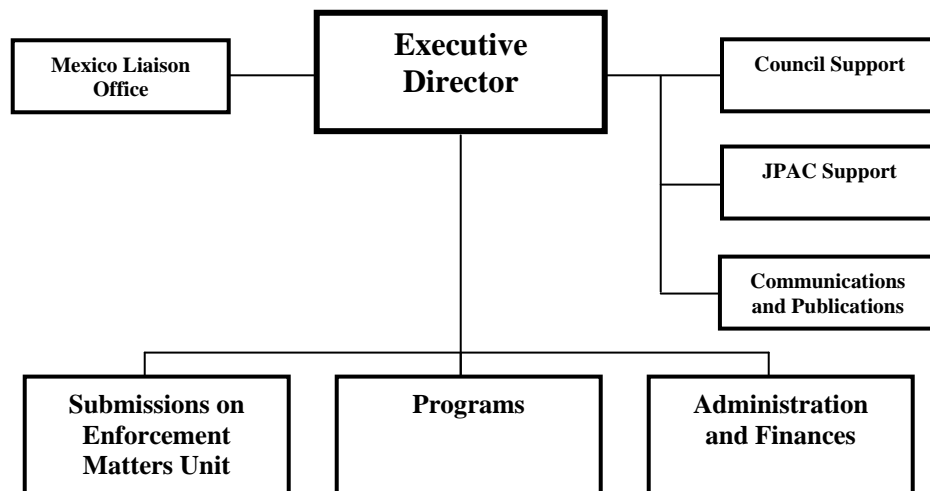
- Development and distribution of publications, reports and executive summaries
- Dissemination of meeting information, including agendas, presentations and speeches
- Media relations, including news releases, media relations, and briefings
- Feature articles and advertisements in relevant periodicals and websites
- E-bulletins and electronic newsletter(s)
- Fact sheets and promotional brochures
- Contributions to social media networks

8 Administration and Management

The Secretariat is responsible for providing technical, administrative and operational support to the Council and to committees and groups established by the Council. Headed by an executive director, the Secretariat has an expert and highly motivated staff of 55 people drawn from each of the Commission's three countries. Administration, communications and general services staff provides support integral to implementation of the cooperative work program and institutional objectives.

The CEC Secretariat is headquartered in Montreal, with a regional office in Mexico City. The Mexico liaison office is engaged in promoting CEC's work and facilitating the interaction between the CEC and environmental stakeholders in Mexico.

CEC Secretariat Organization



8.1 Quality Assurance

The CEC's Quality Assurance Policy and Procedures document establishes the principles and mechanisms for ensuring the objectivity, utility, accuracy and integrity of CEC research and information products and services. This Operational Plan has been prepared in accordance with that policy. Individual quality assurance project plans will specify the particular steps required for each information product or service (including Party, peer and expert review, where appropriate) to meet the requirements of the CEC's quality assurance policy.

Appendix A: CEC 2010 Project Descriptions

Project 1	Mapping North American Environmental Issues	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$158,000	Working Group(s) associated with this work North American Atlas Coordination Group (NAACG)

Objective of Project

The objective of this project is to enable the visualization of North American environmental information through maps. In 2010 this will be accomplished through the completion of 2009 mapping-related tasks and updates of the digital North American Environmental Atlas. No new maps layers will be developed in 2010; only map layers underway and identified in 2009 will be added to the North American Environmental Atlas's webpages and interactive map viewer. These layers and their associated data will also be available for download. (Delayed staffing for this activity in 2009 on the part of the CEC Secretariat and various data delays itemized herein combined to hold up completion of certain 2009 activities.)

This project will enhance awareness of environmental topics of continental scale, add value to other CEC projects, provide a framework for geo-referenced environmental data, and build networks among partner mapping organizations through collaboration on harmonized map layers of mutual interest.

Background

Project History and Foundation

As an initial activity, the CEC and representatives of the National Atlas agencies of Canada, Mexico and the United States—Natural Resources Canada, the *Instituto Nacional de Estadística y Geografía* (INEGI—National Institute of Statistics and Geography), and the United States Geological Survey (USGS)—collaborated to compile a number of base map layers, both in hard copy and as a digital platform. These base layers are now known as

the North American Atlas Framework (NAAF), and they provide a consistent, harmonized geographic framework for the display and analysis of thematic data at the North American scale.

The NAAF base layers are standardized geospatial data sets, with a scale of 1:10 million. Released for public access in June 2004, these base layers include political boundaries (international and state/provincial), major roads, railroads, populated places, hydrography (lakes, rivers, coastlines), glaciers and sea ice, and bathymetry (depths of water bodies). The completed base map layers are available for download from the online North American Environmental Atlas (NAEA) webpages, <http://www.cec.org/naatlas>. A North American watersheds base layer was also produced in a wall map format.

In October 2006, the National Atlas agencies, the Parties, and the CEC Secretariat formalized their working relationship through the creation of the North American Atlas Coordination Group (NAACG).

Over the last two years, this project has developed NAAF-compatible data layers for renewable energy capacity, marine and terrestrial ecoregions, pollutant release facilities, protected areas, priority conservation areas, important species ranges, elevation, land cover, and watersheds. Some of these data layers were developed in cooperation with other CEC projects, while other layers were contributed by the National Atlas agencies. All completed data layers and associated metadata are shared with the public through the North American Environmental Atlas webpages, <http://www.cec.org/naatlas/>. In the twenty months following its launch in

February 2008, this site has had approximately 140,000 page views, with significant spikes in traffic following the release of new map layers.

To improve the ease and efficiency of providing map layers to the public, the CEC has developed an interactive web-based map viewer that allows users to examine and download all of the maps in the Atlas in one place. This map viewer allows the user to overlay maps of interest and zoom in on specific areas. Several map layers, including industrial pollution, species of common conservation concern, marine ecoregions and anthropogenic biomes, have also been developed as interactive Google Earth layers. A wall map of land cover based on satellite images for 2005 was completed in 2009 as the first product of the North American Land Change Monitoring System (NALCMS). Lastly, outreach efforts have included the development of a short video, a brochure on the North American Environmental Atlas, presentations and exhibits at several large, international conference and targeted printed and web-based material. The land cover map was also featured as a centerfold poster in the December 2009 issue of Canadian Geographic.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

The key partners in this work are representatives of the national mapping agencies of the three North American countries—Natural Resources Canada, the USGS, and INEGI. These agencies have worked together to develop the base map layers and continue to produce North American maps of priority themes that are shared through the online Atlas. In addition, these mapping agencies provide publicity for the North American Environmental Atlas through their own webpages and activities (e.g., participation in international meetings and conferences).

Based on identified priorities by the partners, the CEC supports several technical subgroups of the NAACG: 1) The North American Land Change Monitoring System (NALCMS) subgroup; 2) the 1:1 million-scale mapping subgroup; and 3) the North American Protected Areas subgroup. The NALCMS subgroup, composed of representatives from the remote-sensing and land cover groups of Natural Resources Canada, USGS, INEGI, the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio), and the *Comisión Nacional Forestal* (Conafor), produces annual land-cover and land-change information in a harmonized manner across North America. The 1:1 million-scale mapping subgroup, composed of representatives from the national mapping groups, produces harmonized

maps of North America at a scale of 1:1 million. The North American Protected Areas subgroup, composed of representative from Environment Canada, *Comision Nacional de Areas Naturales Protegidas* (Conanp), USGS, and several academic and non-government organizations, produces updated map data and information for marine and terrestrial protected areas consistent across the three countries. It also harmonizes data for North America with the World Database on Protected Areas (WDPA). The CEC facilitates the technical work of these partners. The agencies involved in these subgroups have become important stakeholders and partners of the CEC mapping project.

This project has also partnered informally with international organizations and academic institutions whose outputs include global maps of environmental data. These have included McGill University in Canada and Clemson University in the United States, and NGOs such as the International Union for Conservation of Nature (IUCN) and the World Protected Area Database (WDPA). The CEC has supported these international mapping activities by incorporating them into the North American Environmental Atlas as they have been developed. These arrangements are mutually beneficial to the CEC and the institutions contributing the data: the North American Environmental Atlas gains breadth by incorporating new information that supports the visualization of environmental issues on a continental scale, while the international participants gain a wider audience for their work.

Advisory Groups Related to This Project

The North American Atlas Coordination Group (NAACG) serves an advisory role for the project and provides a focal point for trilateral collaborative activities. It is composed of representatives from Natural Resources Canada, INEGI, and the USGS.

Rationale

Fulfillment of Strategic Objectives

This project is linked to the Information for Decision-Making priority in the 2005–2010 Strategic Plan. The long-term goal for this priority is to support better decision-making by providing information on the key environmental challenges and opportunities facing North America.

The Strategic Plan specifically identifies the need for an initiative to provide for “the development over time of an online North American environmental atlas depicting environmental protection, conservation, biodiversity and other information on a continental scale.” The role of the CEC has been to bring together the three governments’ mapping experts to facilitate development of this atlas and to further the development of the Atlas through maps of information from CEC projects and other priority thematic areas. The proposed work for 2010 will complete work not completed in 2009 and will update existing layers in the North American Environmental Atlas. This work will contribute to fulfillment of these information objectives by increasing the breadth and depth of the North American Environmental Atlas content.

Information for Decision-making

The type of information made available through this project is map-based. The project is primarily aimed at furthering the visualization, display, and communication of information on continental-scale environmental topics, through maps. Maps are not a substitute for reports and other environmental information, but serve as a complementary communications resource for decision makers and the interested public by simplifying the geographical patterns associated with environmental data. Maps can help decision makers visualize the geographic nature of environmental issues and bring important patterns to light. Because the information from the North American Environmental Atlas is depicted at the continental scale, its value as a tool for decision makers is at a broad level. Specifically, the growing number of foundational and thematic layers allows decision makers to look at critical trends by combining and overlaying the information contained in the map layers such as watershed loading of specific PRTR chemicals, the map of human influence in relation to the location of protected areas and the location of industrial pollutants in relation to population density. The information can help decision makers to identify opportunities for collective action as well as the areas in which to focus their efforts.

Trade and Environment

The role of this project in the context of trade and the environment is to further the understanding of trade and environment-related topics through map-based display of information, whenever feasible. An example of trade and environment data within the North American Environmental Atlas is installed renewable energy across North America.

North American Scope of the Project and Its Relevance to the Three Parties

This project supports the visualization of the North American environment through maps. The online North American Environmental Atlas includes information that is harmonized and seamless across the continent. Thus it differs from national mapping activities and even binational mapping activities. Bringing together information in this manner requires coordination between the Parties to harmonize and reconcile existing data for a seamless North American view. The mapping project allows the three Parties to more effectively visualize the shared North American environment and identify opportunities for collective work. Moreover, because the data in the Atlas covers each of the countries, the project enables the Parties to visualize their own environment in the context of North America.

CEC Niche and Value Added

The CEC plays a key role in bringing together and facilitating the harmonization of a range of environmental maps on the continental scale. To this end, a major role of the CEC in this project has been to convene the three countries’ government experts, through the NAACG, NALCMS, 1:1 million-scale mapping and North American Protected Areas subgroups and coordinate their cooperative efforts in developing maps of priority environmental themes. In addition, the CEC seeks sources of environmental information that can be mapped at a continental scale, explores methods for sharing map-based North American environmental information, and provides the completed data and maps to the public through the North American Environmental Atlas webpages.

It is important to note that the NALCMS is a major, pre-existing scientific collaboration between science organizations within the Canadian, Mexican and US governments. It was initiated at the 2006 Land Cover Summit in Washington, DC, and is mentioned in the Summit proceedings as one of the most significant outcomes of the Summit. The NALCMS is also underpinned by Annex 17 to the Memorandum of Understanding between NRCan and the USGS. Annex 17 contains intellectual property clauses that apply to data and products resulting from the Canada/US portion of the NALCMS collaboration. The CEC and its Secretariat continue to support the NALCMS project through facilitation and convening of meetings.

Through this project, the CEC brings harmonized environmental data for North America and also facilitates the governments to continue to create maps of priority environmental themes. Other mapping initiatives exist in North America at the national level (e.g., National Atlas of the United States, the National Atlas of Canada) and sub-national levels (e.g., state, provincial, county, and municipal), but their maps do not typically span the continent and are not usually harmonized with each other. While international organizations and environmental NGOs undertake mapping work, the data does not always cover the continent in a consistent way, and these maps are focused on specific themes.

Working with the output of other project areas of the CEC has led to thematic maps that display a breadth of environmental information on a continental scale. Further, the CEC has identified and compiled North American data from international organizations, NGOs, and academic institutions and displayed this information in a manner consistent with the North American Environmental Atlas, to increase the breadth of the Atlas. The CEC has also developed an interactive map viewer for innovative map display, including an interface with the Google Earth platform, and used these platforms to more broadly disseminate North American environmental information.

Linkages with Other CEC Projects

This project is linked to other CEC projects that produce information that can be displayed through maps at the continental scale. Examples include biodiversity projects (e.g., maps of protected areas, priority conservation areas, and ecoregions), the PRTR project (e.g., maps of pollutant release and transfer facilities, maps of emissions from PRTR facilities), and the air project (e.g., maps of power plant emissions). The online North American Environmental Atlas serves as a clearinghouse for most of these program-related maps, enhancing the visibility of the issues that the projects address and the continental scale of the topics.

Activities and Outputs

Key Activities

In 2010, project activity in support of the digital North American Environmental Atlas is limited to completion of tasks not completed in 2009 and updating of maps and information currently within North American

Environmental Atlas. No new map layers will be developed, however map layers underway and identified in 2009 will be added to the North American Environmental Atlas in 2010. The three main areas of work will include:

- Collaboration among the Atlas and the partner agencies of the three countries through in-person meetings and regular conference calls of the NAACG, NALCMS, 1:1 million-scale mapping and North American Protected Areas subgroups. This supports identification of issues of common interest and improved exchange of environmental mapping information.
- Supporting the completion of 2009 map layers planned for the North American Environmental Atlas including those stemming from other CEC project activities in various areas (PRTR and grasslands) and 2009 initiatives such as the North American Land Change System, 1:1 million-scale maps, marine and terrestrial protected areas and international pollutant transfers. This work will only focus on layers identified in the CEC's 2009 Operational Plan that were planned for development, completion, and inclusion in the online North American Environmental Atlas in 2009 and otherwise not completed in 2009. These include:
 - Watershed loadings of selected PRTR chemicals – Work underway in conjunction with the ongoing development of the 2006 *Taking Stock* report. Delay due to corrections to the watershed map by Canada, due for release in December 2009;
 - Marine priority conservation areas in eastern North America – Work underway in conjunction with the 2009 Conserving Marine Species and Spaces of Common Concern project;
 - Hazardous waste generating and receiving sites – Work underway in conjunction with the 2009 Trade and Enforcement of Environmental Laws project outputs. First draft of the map expected December 2009 to be refined and reviewed in 2010;
 - North American land cover (2006) and land cover change (2005–2006) Baseline map (land cover 2005) completed in November 2009. Discussion on process and methodology to release land cover 2006 and land cover change (2005–2006) expected to conclude in December 2009;

- Forests. Data for all three countries have been collected. Process to harmonize datasets underway with the North American Forest Commission. Data completion has been delayed and the process is to resume by January 2010;
 - 1:1,000,000-scale base maps – Work underway. Update from the International Boundary Commission on borders between Canada/US and US/Mexico and mapping of water bodies has delayed progress; and
 - Seaports and airports – Work underway to gather data. Delay due to mid-year start of program manager. Work to be completed in early 2010.
-
- Updating outreach materials to better promote the North American Environmental Atlas to its users. This task aims to improve the utility of CEC information products through updating the web-based interactive map viewer as additional layers are made available, Web 2.0 applications and promotional material, including video clips, presentations and blog releases.

Target Groups

The primary target audiences for this project are: 1) the general North American public with an interest in understanding North American environmental issues, 2) users of other CEC reports and background papers who may be better served through enhanced mapping capacity, 3) researchers in environmentally related disciplines (such as ecology, earth sciences, biology, and geography) who may be interested in using harmonized North American environmental data, and 4) decision makers with an interest in understanding the continental scope of environmental topics.

Partners, Stakeholders

Key partners in this project in 2010 are the mapping agencies (Natural Resources Canada, INEGI, USGS) from the three countries. Partners in the land change monitoring activity include experts from the three countries' remote-sensing and land change organizations: Canadian Centre for Remote Sensing-Natural Resources Canada, USGS, INEGI, Conabio, and Conafor. In 2010, the North American Environmental Atlas will incorporate maps of North American forests; in developing these maps, the CEC is partnering

with the North American Forestry Commission (NAFC) of the FAO.

Leveraging

In 2010, this project will continue to leverage CEC resources by facilitating the efforts of mapping experts from a variety of government agencies to produce environmental thematic maps. In these initiatives, the CEC will continue to play a leadership and facilitation role while the government agencies will contribute their technical and cartographic expertise. Moreover, these agencies will promote the Atlas on their own webpages and through their participation in international meetings and conferences.

Outside of government, the project will continue to benefit from the in-kind use of North American environmental information from a variety of sources, including research institutions and international organizations.

The CEC has publicized and more widely disseminated some of its mapping products through the use of freely available mapping platforms, in particular Google Earth. While leveraging of funding from the private sector is not anticipated, use of the kml file format enables CEC map products to be viewed interactively in a variety of freely available mapping applications, such as Google Earth. This serves to increase the accessibility and utility of the North American Environmental Atlas.

This project will continue to encourage map-based display of environmental information, whenever feasible, in other CEC projects, thereby adding to the breadth of the North American Environmental Atlas while enhancing the work of other projects.

Outputs and Associated Timelines

The following map layer outputs are planned for completion, and inclusion in the online North American Environmental Atlas in 2010 (all carried over from 2009):

- Watershed loadings of selected PRTR chemicals;
- Marine priority conservation areas in eastern North America;
- Hazardous waste generating and receiving sites;
- North American land cover (2006) and land cover change (2005–2006);
- Forests;

- 1:1,000,000-scale base maps; and
- Seaports and airports.

Additional outputs in 2010 will include the following:

- Map layers agreed upon in 2009 from other CEC projects, including the updated PRTR layer and the updated grassland priority conservation areas layer, both already underway, in the Atlas;
- Annual in-person coordination meeting and monthly conference calls of national Atlas agencies and mapping agency partners; and
- North American Environmental Atlas outreach materials.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Regular collaboration among the three National Atlas programs and other mapping agencies with capacity to contribute to the North American Environmental Atlas;
- Updating and completion of identified map layers and geo-referenced datasets; and
- Ongoing maintenance of geospatial data, map layers, and metadata on webpages.

Performance Indicators

- Continued endorsement by and participation of the National Atlas programs (information available);
- Number of map layers added and updated to the North American Environmental Atlas (baseline and current information available); and
- Increased use of the North American Environmental Atlas products (baseline and current information available).

Intermediate Outcomes

- Identification of appropriate niche for CEC mapping activities;
- Consensus on priorities for improvements to existing products and understanding of requirements for thematic layers;
- Successful collaborative arrangements, including processes to maintain, update, and disseminate existing products;

- Digital atlas displaying continent-wide environmental topics, available through CEC website;
- More effective use of maps and map-based displays in CEC reports and information products;
- Wider awareness of Atlas and CEC mapping products; and
- Additional attention to North American-scale research questions by academics and other researchers.

Performance Indicators

- Traffic on Atlas pages of CEC website (current information available);
- Use of Atlas map layers in poster presentations and academic research (no information available); and
- Specific use of Atlas maps in CEC reports (current information available).

Final Outcomes

- Common approaches, comparable data and information across North America on continent-wide environmental topics;
- Improved visualization and understanding of North American environmental topics through mapping products;
- Stronger regional information systems; and
- Facilitation of geographic analysis and decision-making on a broad range of environmental topics.

Performance Indicators

- Utilization of common approaches, comparable data and information consistent with the North American Atlas Framework;
- References to the North American Environmental Atlas, reproduction of the atlas map layers, and use of atlas data and products, in print and Web media sources.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

Work described here for 2010 is intended to complete project activities as agreed in the 2009 project description and otherwise update existing data

layers and information within the North American Environmental Atlas

Target End Date for CEC Involvement

Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein. Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions. In the event that the CEC's 2010–2015 Strategic Plan does not include any further support for the North American Environmental Atlas, the data and information contained in the Atlas would be transferred back to the national atlas programs in the three countries. All three national atlas programs already store copies of the data layers and have an agreement to rotate the hosting and achieving of the primary data between countries as necessary. All parties have already agreed to share data release responsibilities and the parties would need to resolve cooperative responsibility for updating, outreach, and maintenance of the North American Environmental Atlas.

Communications

The target audiences are: 1) users of other CEC reports and background papers who will be better served through enhanced mapping capacity, 2) researchers in environmentally related disciplines (such as ecology, earth sciences, biology, and geography) who may be interested in using harmonized North American environmental data, 3) decision makers with a need to understand the continental scope of environmental topics, and 4) the general public with an interest in understanding North American environmental issues.

The web pages for the North American Environmental Atlas, including the interactive web-based map viewer, serve as the primary communications mechanism, with periodic announcements to CEC list-serve members about

new layers. In addition, the CEC incorporates currently available maps into CEC information products such as the *Taking Stock* series. The project manager and NAACG members take advantage of their ongoing participation in conferences and workshops to raise awareness of the North American Environmental Atlas. The widespread distribution to the public of the 2009 wall map of land cover (2005 data) and a brochure on the North American Environmental Atlas at conferences and meetings (e.g., of geographers, the mapping community, and of environmental policy makers and scientists), distribution by CEC staff at meetings and conferences (e.g., at international meetings, at meetings at universities and with NGOs), through the CEC website by request and through the reproduction of the map image in the December 2009 edition of Canadian Geographic (distribution, 250,000 readers) has raised the profile of the Atlas.

Information Management

Upon completion, all metadata, shapefiles, keyhole mark-up language (kml) file formats, and geospatial databases assembled and developed by the CEC will be maintained on the North American Environmental Atlas webpages and on the interactive web-based map viewer. This will serve both archiving and distribution functions for mapping related data files. Some layers (in particular, base layers) will be mirrored on mapping agency partner websites. The CEC currently maintains licenses for ArcMap, Google Earth Pro, and Arc2Earth, but has limited in-house capacity for substantial analytical or cartographic work. To the extent that thematic layers and mapping products are produced by the CEC rather than through in-kind assistance by mapping agency partners, the CEC will require contracted GIS technical services which are not currently available in-house.

Mapping requirements, when anticipated in other CEC projects, will be supported by the project manager for Environmental Information and NAAF guidance documents as references.

Implementation Plan

PROJECT 1 – Mapping North American Environmental Issues

Strategic Objectives:

- Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern.
- Establish an environmental information and knowledge framework for North America.
- Make environmental information more widely available in order to facilitate local, national and regional action.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Strengthen and facilitate North American collaboration on Atlas development and use	Annual, in-person coordination meeting of national Atlas agencies (NAACG), annual meetings of NALCMS, 1:1 million-scale mapping and protected areas subgroup. Monthly conference calls for all four groups. Presentations at conferences and workshops.	Jan–Dec	Consensus on priorities for improvements to existing products and choice of dissemination methods. Successful collaborative arrangements, including processes to maintain and update existing products. Wider awareness of Atlas mapping products.	National Atlas programs. National mapping agency partners. Researchers with an interest in environmental topics at the North American scale.	\$60,000	Annual planning and coordination meeting of national Atlas agencies and mapping partners. Monthly conference calls. Presentations at appropriate conferences and workshops.
2. Completion of 2009 planned map layers in the North American Environmental Atlas	Output maps of: - Watershed loadings of selected PRTR chemicals. Work underway in conjunction with development of 2006 <i>Taking Stock</i>	Jan–Dec	Increased awareness and/or knowledge of North American environmental information through map-	Existing audiences for CEC information products and existing audiences for other CEC project activities,	\$63,000	Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<p>report. Delay due to corrections in the watershed map by Canada, now due for release in December 2009.</p> <p>- Marine priority conservation areas in eastern North America. Work underway in conjunction with the 2009 Conserving Marine Species and Spaces of Common Concern project. Methodology report and process expected December 2009.</p> <p>- Hazardous waste generating and receiving sites. Work underway in conjunction with the 2009 Trade and Enforcement of Environmental Laws project. First draft of expected December</p>		<p>based visualization.</p> <p>Facilitation of geographic analysis and decision-making.</p>	<p>including individuals, organizations, students, NGOs</p> <p>Researchers with an interest in environmental topics at the North American scale.</p>		Strategic Plan and subsequent project-level descriptions.

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<p>2009, to be refined and reviewed in 2010.</p> <p>- North American land cover (2006) and land cover change (2005–2006). Baseline map (land cover 2005) completed in 2009. Agreement on process and methodology to release land cover 2006 and land cover change (2005–2006) underway, expected in December 2009.</p> <p>- Forests. Data for all three countries have been collected. Process to harmonize datasets underway with the North American Forest Commission. Delay due to unexpected situation with the Canadian data. Process to resume by January 2010.</p> <p>- 1:1,000,000-scale base</p>					

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<p>maps. Work underway. Data delays due to updates from the International Boundary Commission on borders between Canada/US and US/Mexico and mapping of water bodies.</p> <p>- Seaports and airports. Work underway to assemble data for all three countries. Delay due to mid-year start of Program Manager. Work to be completed in early 2010.</p> <p>- PRTR – industrial pollutants. Work in conjunction with the Monitoring and Assessing Pollutants across North America project.</p> <p>- Grassland priority conservation areas. Update of existing map.</p>					

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Work in conjunction with the Conserving North American Grasslands project output.					
	Quality Assurance Summary. Project Database/Dataset: Map-based analysis of watershed loadings for <i>Taking Stock</i> special feature chapter.	Development: In coordination with the project Tracking Pollutant Releases and Transfers in North America Party Review: In coordination with the project Tracking Pollutant Releases and Transfers in North America Availability online within <i>Taking Stock 2006</i> report and as a jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: June 2010				
	Quality Assurance Summary. Project Database/Dataset: Priority conservation areas along Atlantic coast.	Development: In coordination with the project Conserving Marine Species and Spaces of Common Concern. Party Review: In coordination with the project Conserving Marine Species and Spaces of Common Concern. Availability online as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: December 2010.				
	Quality Assurance Summary. Project Database/Dataset: Hazardous waste	Development: In coordination with the project Trade and the Enforcement of Environmental Laws. Party Review: In coordination with the project Trade and the Enforcement of Environmental Laws. Availability online as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: June 2010				

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	generating and receiving sites.					
	Quality Assurance Summary. Project Database/Dataset: North American land cover (2006) and land cover change (2005–2006)	Development: December 2009–April 2010(2006 land cover), April 2010-October 2010 (land cover change). Party Review: April 2010 (2006 land cover), November 2010(land cover change). Availability online as as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: May 2010 (2006 land cover) December 2010(land cover change).				
	Quality Assurance Summary. Project Database/Dataset: 1:1,000,000-scale base maps	Development: January–September 2010. Party Review: October 2010 Availability online as as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: November 2010				
	Quality Assurance Summary Project Database/Dataset: North American forests thematic map layers.	Development: January–July 2010 Party Review: August 2010 Availability online as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: September 2010				
	Quality Assurance Summary.	Development: January–September 2010 Party Review: October 2010				

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern. Establish an environmental information and knowledge framework for North America. Make environmental information more widely available in order to facilitate local, national and regional action. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Project Database/Dataset: North American transportation infrastructure thematic map layer (sea ports and airports).	Availability online as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download November 2010				
	Quality Assurance Summary. Project Database/Dataset: Pollutant Transfer and Releases	Development: In coordination with the project Tracking Pollutant Releases and Transfers in North America Party Review: In coordination with the project Tracking Pollutant Releases and Transfers in North America Availability online as as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: December 2010				
	Quality Assurance Summary. Project Database/Dataset: Grassland Priority Conservation Areas	Development: In coordination with the project Conserving North American Grasslands Party Review: In coordination with the project Conserving North American Grasslands Availability online as as jpg and GeoPDF image, kml, GIS shapefile, MXD file and metadata for download: December 2010				
3. Outreach material	Updated outreach strategy for use by CEC Secretariat and NAACG. Updated outreach materials, e.g. brochure,	Jan.-Dec.	Raise awareness of and participation in the North American Environmental	Cartographic community; government agencies; research and academic community; GIS	\$35,000	Development of outreach materials to promote map-based products from the 2010–2015 Strategic Plan

PROJECT 1 – Mapping North American Environmental Issues						
Strategic Objectives: <ul style="list-style-type: none">Strengthen the capacity of North American decision makers to understand continental environmental issues of common concern.Establish an environmental information and knowledge framework for North America.Make environmental information more widely available in order to facilitate local, national and regional action.						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	display materials.		Atlas initiative by the target audiences throughout the region.	practitioners; identified target audiences (e.g., students, academic researchers, indigenous groups, NGOs, others from general public).		Re-evaluation of GIS software requirements. Evaluation of efficiency
	Quality Assurance Summary. Outreach Material	Secretariat review: Periodic Party review–Quality assurance: Ongoing Publication: Ongoing				
Total Cost: \$158,000 Key Partners: Natural Resources Canada Environment Canada <i>Instituto Nacional de Estadística y Geografía (INEGI)</i> Semarnat <i>Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)</i> <i>Comisión Nacional Forestal (Conafor)</i> US Geological Survey (USGS) US EPA						

Project 2	State of the Environment Reporting	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$40,000	Working Group(s) associated with this work State of the Environment Advisory Group (SOEAG)

Objective of Project

The objective of this project is to provide an evaluation of the 2008 Mosaic report on the state of the North American environment and to identify priorities for future state of environment (SOE) reporting. Tasks defined here complete work that was intended for 2009 but not accomplished due to delayed staffing on the part of the CEC Secretariat.

Background

Project History and Foundation

The North American Agreement on Environmental Cooperation requires the Secretariat of the CEC to prepare an annual report of the Commission in accordance with instructions from the Council, and that this report should “periodically address the state of the environment in the territories of the Parties.”

In 2001, the CEC published its first and only comprehensive state-of-the-environment report, entitled *The North American Mosaic* <<http://www.cec.org/soe/>>. Developed over a six-year period, this report described the scope and complexity of the North American environment, introduced some key issues, and provided a comprehensive description of conditions. This report, however, did not result in sustained activity serving trilateral decision-making and priority-setting for future CEC initiatives.

Since then, the CEC has engaged in various environmental indicator and reporting activities; albeit more limited in thematic reach than the 2001 *Mosaic*. Examples include *Children’s Health and the Environment in North America: A First Report on Available Indicators and Measures* <www.cec.org/children/>, the annual *Taking Stock* series on industrial releases and transfers <<http://www.cec.org/takingstock/>>, and an ongoing project entitled Assessing the Environmental Effects of Trade <<http://www.cec.org/trade/>>.

In support of the 2005–2010 Strategic Plan, the CEC re-initiated work in this project area in 2006. Recognizing that many organizations (governmental, nongovernmental, academic, etc.) already undertake reporting initiatives for various environmental topics at every scale, from local to global, the CEC sought to learn from the prior experience of other such efforts, avoid duplication of effort, and identify an appropriate niche. Building on past experience, the Secretariat has engaged designated representatives of the Parties to design an effective and timely reporting activity.

In May 2007, the CEC convened a scoping meeting of national SOE reporting experts from Environment Canada, Semarnat, and the US EPA to establish parameters for the 2008 report State of the Environment Report: *The North American Mosaic: An Overview of Key Environmental Issues* <<http://www.cec.org/soe/>>. In June 2007, the Council endorsed this proposal and adopted Resolution 07-14, to provide additional funding in 2007 for preparing briefing papers on major North American environmental themes to be presented to the Council at the 2008 regular session

http://www.cec.org/Page.asp?PageID=122&ContentID=961&SiteNodeID=266&BL_ExpandID=&AA_SiteLanguageID=1>.

The CEC assembled a State of the Environment Advisory Group (SOEAG), in 2007 to guide the 2008 reporting process composed of designated representatives from the environmental reporting programs of Environment Canada, Semarnat, and the US EPA. *The North American Mosaic: An Overview of Key Environmental Issues* was delivered to Council in June 2008. The SOEAG's mandate has since expired (30 September 2009) and the evaluation of the 2008 Mosaic has yet to be undertaken due to the mid-hiring of the program manager overseeing the project.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

The key stakeholders associated with this project are the Council, other constituent elements of the Commission for Environmental Cooperation, and the North American public.

Advisory Groups Related to This Project

The State of the Environment Advisory Group (SOEAG) served an advisory role for the project and provided a focal point for trilateral collaborative effort. It was composed of designated representatives from the environmental reporting programs of Environment Canada, Semarnat, and the US EPA. The current mandate of the SOEAG expired in September 2009.

Rationale

This project supports the Information for Decision-making priority in the 2005–2010 Strategic Plan. The long-term goal for this priority is to support better decision-making by providing information on the environmental challenges and opportunities facing North America. Activities planned for 2009 were not carried out. The activities planned for 2009 that will be carried out in 2010 include:

- Evaluation of the 2008 Mosaic report on the state of the North American environment and identification of priorities for future state of environment (SOE) reporting; and
- Investigation of the feasibility of developing North American environmental indicators for future SOE reporting in line with the CEC new strategic priorities.

This project is primarily aimed at informing the Council's deliberations on cooperative activities through the annual work program of the CEC and the development of the 2010–2015 Strategic Plan.

Fulfillment of Strategic Objectives

In terms of the current strategic plan this project is linked to the Information for Decision-Making priority. The long-term goal for this priority is to support better decision-making by providing information on the key environmental challenges and opportunities facing North America.

CEC Niche and Value Added

The CEC plays a key role in bringing together information on the status and trends of indicators related to the state of the environment across North America. The harmonization of data and reporting methodology allows for comparable and compatible analyses of progress and challenges on key environmental issues.

Linkages with Other CEC Projects

- SOE reporting draws on indicators and measures reported on in other CEC projects.
- The results of this project will help initiatives conducted under the proposed 2010-2015 Strategic Plan.

Activities and Outputs

This project will have two components:

- Meeting of the SOE experts to identify priorities for future CEC work on SOE reporting.
- Guidance document summarizing opportunities for CEC in ongoing SOE reporting and exploring feasibility—in terms of time and resources required—of North American environmental indicators development in line with the CEC's new strategic priorities.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

Direct Outcomes:

- Proposed approach for future SOE reporting, including rationale and timeline.

Performance Indicators

- New mandate for SOEAG and analysis of Mosaic report, June 2010.

Intermediate Outcomes

- Guidance document for continued North American SOE reporting by the CEC.

Performance Indicators

- Next report on state of North American environment in 2011.

Final Outcomes

- Greater understanding of the state of the North American environment as well as trends over time.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

Regardless of CEC work in this area, state-of-the-environment reporting will continue on the national level, as will other environmental reporting initiatives with a regional focus, such as UNEP's Global Environment Outlook, OECD environmental indicators and outlook, and binational activities, such as Border 2012 between the United States and Mexico. However, absent CEC activity at the North American scale, it is uncertain what entity or organization would undertake a similar regional environmental reporting activity with an integrated North American perspective that includes Canada, Mexico and the United States.

Target End Date for CEC Involvement

Periodic reporting on the state of the North American environment is a standing obligation under the North American Agreement on Environmental Cooperation. The results of this effort in 2010, and as informed by the scoping activity in support of the CEC's new 2010–2015 Strategic Plan, will be to define an appropriate format and cycle to fulfill this obligation on an ongoing basis.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein. Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

In the event that the CEC's 2010–2015 Strategic Plan does not include State of the Environment reporting, the Parties will need to assess how the NAAEC obligation for the CEC Secretariat to provide periodic reports upon the state of the environment in North America should be accomplished. Regardless, previous CEC State of the Environment reports will remain available on the CEC's webpages and the three countries will continue to report separately on indicators of importance. Periodic summaries of continental indicators will continue through the UNEP-GEO reports as well as country-supported OECD information and accounts.

Communications

The target audiences are: 1) decision makers with a need to understand the continental scope of environmental topics; 2) users of other CEC reports and background papers; 3) researchers in related environmental disciplines (such as ecology, earth sciences, biology, and geography); and 4) the general public with an interest in understanding North American environmental issues.

Information Management

No immediate impacts are expected upon the CEC's information management framework, although it may emerge that management of this resource can play an enhanced role in the monitoring and reporting of project activity and results.

Implementation Plan**PROJECT 2 – State of the Environment Reporting**

Objective – To provide an evaluation of the 2008 Mosaic report on the state of the North American environment and to identify priorities for future state of environment (SOE) reporting

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Development of approach for the next CEC SOE report	Three conference calls and one in-person meeting of SOE experts. SOE guidance document (for internal use) summarizing opportunities and priorities for ongoing SOE reporting and investigating feasibility of North American environmental indicators development.	April (meeting); March, June, October (conference calls) May-September	Evaluation of 2008 Mosaic report; identification of opportunities and priorities for next SOE report. Approach and rationale for ongoing North American SOE reporting, including timeline and responsibilities.	Council. Public. Government agencies and partners.	40,000	Next CEC SOE report
Total Cost: \$40,000						
Performance Measurement Indicators: <ul style="list-style-type: none"> ▪ Guidance document on future SOE reporting ▪ Next report on state of North American environment 						Key Partners: State of the Environment Advisory Group (SOEAG)

Project 3	Environmental Assessment of NAFTA	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$150,000	Working Group(s) associated with this work Trade and Environment Working Group

Objectives of Project

The objective of the project is to prepare a comprehensive report that will summarize available information on the environmental effects of NAFTA, identify gaps and prioritize data needs concerning information about the environmental effects of trade liberalization in North America and to advise the CEC on new approaches to the ongoing assessment of the environmental effects of trade liberalization in North America.

This project will also support ongoing collaboration among trade and environment officials of the three countries.

Background

Project History and Foundation

The CEC's work thus far has contributed to a better understanding of trade and environment linkages, improved and informed environmental reviews of future trade and investment agreements by the Parties, and improved environmental assessments of NAFTA by the CEC and the Parties. These benefits are expected to develop greater policy coherence at the domestic and regional levels in North America by helping the Parties make better policy choices on trade and environment issues. They will also help the CEC direct future work. The project will also provide the CEC and the Parties with improved tools to conduct assessments on the environmental effects of NAFTA.

The findings of a 2008 review¹ highlight the value of CEC's work to date and the need to assess future work in the context of deeper economic integration and emerging environmental issues. These include: (1) climate change and energy; (2) environmental standards, competitiveness and the possibility of green protectionism; (3) shifting consumption and production patterns; and (4) accelerating globalization and changing public opinion. As 2010 marks the end of the CEC's current five-year planning cycle, it also represents an opportunity to take stock of the assessment work, and to address the findings of the 2008 JPAC and Trade and Environment Working Group review.

In terms of process, the review noted that government officials' participation at previous assessment symposia had dropped significantly, coupled with a generally low level of private sector and international experts' participation. Better targeting of participants and the development of partnerships with other organizations was suggested. In addition, the symposium approach, in its current form, was found to be a limited outreach vehicle. It was suggested that the output of the assessment work could lead to the publication of a new flagship publication such as the CEC's *Taking Stock* report to increase outreach and convey results to new audiences. Further background on the CEC's ongoing environmental assessment of NAFTA can be found at: <http://www.cec.org/symposium>.

Key stakeholders, Resource Leveraging, Partnerships (to date)

Stakeholders in this effort are the academic community, nongovernmental organizations (NGOs) inter-governmental organizations (IGOs), and government representatives involved in assessing the environmental effects

¹ http://www.cec.org/Storage/61/5389_08-24a-Symposium-Lessons-fin_en.pdf;
http://www.cec.org/Storage/61/5392_08-24b-Experts%20Roundtable-fin_en.pdf

of trade liberalization.² Over the years, the CEC has collaborated with most of the stakeholders in the field of *trade and the environment* in general, and NAFTA, in particular. The CEC Secretariat will explore new partnerships and leverage resources for this project, including, initially, the institutions represented in the proposed Panel of Experts (PoE).

Advisory Groups Related to This Project

The Trade and Environment Working Group (TEWG) will provide substantive input and guidance to this project.

Rationale

This project responds to NAAEC Article 10(6)(d),³ which commits the Parties to consider the environmental effects of NAFTA on an ongoing basis. It aims to accomplish this by addressing the findings of the abovementioned review and to create the foundations for future CEC work in its next planning cycle.

In essence, this project proposes a new approach, beginning in 2010, creating a Panel of Experts mandated with to develop a report on the *Environmental Assessment of NAFTA*. This shift from an event-based process to expert-based research will, among other things, allow the CEC to take stock of the work to date, designate upcoming environmental issues, assess cumulative environmental effects and provide recommendations to educate and inform future assessment work. In lieu of broad episodic events, the PoE could constitute a platform to engage with a smaller, but highly relevant set of stakeholders (academic, business, and policy decision-makers in a roundtable format). This format would free up resources to disseminate the results in a wider range of forums, such as roundtables, workshops and conferences.

This approach will result in high quality outputs that will advance and take stock of work to date and will focus on providing recommendations for future assessment work. This includes a review of the existing analytical framework, addressing the implications of environmental trends in North America, assessing cumulative environmental effects, better engaging

partners and audiences for this work, enhancing its utility for trade-policy decision-makers, as well as informing more general and useful information outputs for the CEC's Trade and Environment activities. In its development, this work will consider existing work of environmental assessments on trade, particularly as developed by the CEC, and seek to avoid duplication.

The shift from an event-based approach to an expert-based research process requires consideration of complementary activities to ensure the involvement of the wider public. This issue will be considered by the Trade and Environment Working Group as well as by the PoE. Options include open consultations through an online forum, blogs, collaborative platforms, and subgroup meetings.

Fulfillment of Strategic Objectives

This project contributes directly to fulfillment of the CEC's 2004 Puebla Declaration⁴ priorities as well as objectives of the CEC's 2005–2010 Strategic Plan.⁵

Information for Decision-making

The findings of this work are intended to support government and trade officials in making better policy choices concerning trade and environment issues.

Capacity Building

N/A

Trade and Environment

The basis of this project addresses directly the assessment of environmental effects of trade.

North American Scope of the Project and Its Relevance to the Three Parties

The PoE will include members from each Party. The project will assess the environmental effects of trade within the three countries and for North America as a whole. The recommendations will be relevant for all Parties.

² For previous symposia, the CEC posted on its website lists of all authors and participants: <http://www.cec.org/symposium/>.

³ NAAEC: http://www.cec.org/Page.asp?PageID=122&ContentID=2732&SiteNodeID=567&BL_ExpandID=&AA_SiteLanguageID=1

⁴ Puebla Declaration: http://www.cec.org/Page.asp?PageID=122&ContentID=1287&SiteNodeID=219&BL_ExpandID=&AA_SiteLanguageID=1

⁵ Looking to the Future. Strategic Plan of the CEC 2005–2010: http://www.cec.org/Storage/84/8020_2005-2010-Strategic-plan_en.pdf.

CEC Niche and Value Added

The NAAEC (Article 10(6)(d)) stipulates that the CEC Council shall, among other things, consider on an ongoing basis the environmental effects of the NAFTA.

Accordingly, over the years, the CEC has developed a significant number of studies on the topic which have earned it regional and international recognition for its work in this area. These include publications on the environmental impacts of trade liberalization in North America and the empirical examination of the most common critical hypotheses concerning the impact of NAFTA on the environment.

The CEC is well positioned to establish a Panel of Experts that will continue this work and assess the environmental effects of NAFTA, sixteen years later. To the best of the CEC's awareness, this work is not being done or proposed by other institutions at this time.

Linkages with other CEC projects

Understanding and information related to the trade-environment relationship within the NAFTA region is central to the CEC's mandate and will inform current and future CEC cooperative initiatives.

Activities and Outputs

Activities

1. Establish an independent ad hoc Panel of Experts as the lead group responsible to assess the environmental effects of NAFTA at 16 and prepare a report on its key findings. The final structure of the report will be defined during implementation of the project but should include a review of the state of play in relation to environmental assessment of trade in the NAFTA region, identification of emerging issues, and gaps and data needs for this work, together with a set of recommendations.

2. Continue supporting the collaboration among trade and environment officials, particularly through the TEWG.

The TEWG will develop specific terms of reference for the work expected to include:

- Take stock of current knowledge on environmental effects of NAFTA over the past 16 years and produce a high quality report;

- Identify areas of strength and weakness of current impact assessment in addressing cumulative environmental effects;
- Identify most relevant and outstanding questions for future CEC work; and
- Provide recommendations to the TEWG on how to improve the current process for assessing the environmental impacts of the NAFTA (this could include format of future work, target audience, maximizing utility to trade-policy decision makers, potential participants, design of a criteria-based approach to selecting the issue for future work) and recommendations on the dissemination of findings and ways to improve public feedback.

The TEWG will appoint PoE co-chairs to lead and coordinate the work. The PoE will develop a work program and procedures to achieve its mandate. It is expected to engage with the stakeholders and assist in conveying results in various fora including partner universities, research institutions and think tanks (e.g., networks, events, conferences, lecture series in universities, etc.). Decisions will be made by consensus and, while the meetings of the PoE will be closed, it is presumed that some of the outputs of the work will be made public.

Target Groups

The report will initially be of limited distribution to the Parties and working groups. Other target groups will be identified by the PoE and the TEWG.

Partners, Stakeholders

The PoE will be an advisory body composed of 9–12 individuals selected on the basis of expertise and geography. Ideally, the PoE would encompass private, public, academic, NGO and IGO sector members. Each would serve in a personal capacity and not represent an organization or country. The PoE mandate will end 31 December 2010, and its work will be overseen by the CEC's Trade and Environment Working Group (TEWG).

The PoE may collaborate with relevant international organizations such as OECD, UNEP, UNCTAD, and the WTO in order to promote synergies. Many of these organizations have already been identified and have been involved in past CEC activity. The PoE will also map relevant partners.

Leveraging

The Panel of Experts provides an opportunity to build longer-term relationships and partnerships with academic experts and research centers

across North America, and to leverage additional resources. The PoE will also explore collaboration opportunities on an on-going basis (e.g. allowing academic institutions in North America to actively participate in areas within their mandate that would require analysis, test-pilots, case studies-, follow-up and scientific or technical discussion).

This project proposal will continue supporting the existing trade and environment collaborative work, including cooperation with the NAFTA FTC.

Outputs and Associated Timelines

- The Panel of Experts will produce a report on the environmental effects of NAFTA for the past 16 years together with recommendations to inform future assessment process.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Improved understanding of the environmental effects of trade liberalization;
- Development of recommendations to the TEWG on how to improve the current process for assessing the environmental impacts of the NAFTA;
- Increased awareness of findings targeted audiences such as government officials, NGOs, private sector, local communities, scientific and academia;
- Identification of gaps, emerging issues, prioritization of data needs and approaches to inform future work in relation to environmental assessment of NAFTA; and
- Production of a report indicating the *state of play* in relation to environmental impacts of trade in the NAFTA region.

Performance Indicators

- Completion of the summary report.

Intermediate Outcomes

- Increased capacity of the Parties and stakeholders to address environmental impacts of trade and to promote synergies between trade and the environment.

Performance Indicators

- Report being used and referenced by the NAFTA Parties and other stakeholders in their development of their policies and actions related to trade and environment, including CEC activities.

Final Outcomes

- Effective actions to ensure trade liberalization contributes to sustainable development, as called for in NAFTA.

Performance Indicators

- Actions being developed and implemented on the basis of the findings from this work.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

The PoE will be assembled within the first quarter of 2010 with an expected initial meeting early in the year. Regular conference calls will be held among TEWG members and one face-to-face meeting will be held with the PoE. A full report is expected in the fall 2010.

Target End Date for CEC Involvement

The CEC's direct support for this project will end in 2010.

Sustainability Beyond 2010

Depending upon the success of this initiative and the depth of interest in the general topic, it is anticipated that PoE partners and associated academic and research centers may continue important aspects of this assessment.

This project responds directly to the NAAEC Article 10(6)(d), which commits the Parties to consider the environmental effects of NAFTA on an ongoing basis. The need for future activities will be based on recommendations for their advisability as project outputs of the CEC's new 2010–2015 Strategic Plan.

Communications

The 2010 report of the PoE will be disseminated to key partners in support of the work of this group.

The broad conclusions and lessons learned from this work will be adapted for dissemination to a non-expert audience.

The accumulated knowledge of the CEC takes greater effect when subjected repeatedly to assessment in collaboration with research and study centers of high performance. Materials produced and published by the CEC, including key deliverables by the PoE, are more likely to be updated and disseminated when accessed by scholars. Partnership development with academic networks, in a more systematic manner, will provide ad hoc venues to boost usage of these materials and contents.

It is assumed that the work of the PoE itself will provide the opportunity to engage key audiences or otherwise communicate their work and that of the CEC. To that end, other outreach activities will be decided on the basis of the work plan of the PoE, including the opportunity to promote participation and awareness of PoE activities.

Implementation Plan

Project 3 - Environmental Assessment of NAFTA						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen North American decision-makers' understanding of continental environmental issues of common concern. Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America. Improve regional and national coordination, including coordination between the CEC and NAFTA Free Trade Commission, through ongoing collaboration of trade and environment officials. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Establish an independent panel of experts on the environmental effects of NAFTA that will prepare a report on its key findings, identify data gaps and priorities, and provide recommendations on how to conduct future assessment work	Master document on the environmental effects of NAFTA and recommendations to inform future assessment work	12 months	<p>Improved understanding of the environmental effects of trade liberalization</p> <p>Increased awareness of the environmental effects of trade liberalization by general public and targeted audiences such as government officials, NGOs, private sector, local communities, scientific and academia</p> <p>Improved methodology for assessing the environmental impacts of the NAFTA.</p> <p>Identification of gaps, emerging issues, prioritization of data needs and approaches to inform the future work of the CEC in relation to environmental assessment of NAFTA</p>	<p>Trade-policy decision makers, trade and environment officials</p> <p>Provincial officials</p> <p>Academic networks, trade and environment research community (universities, NA research centers, etc.)</p> <p>General public</p>	135,000	Future assessment work will be in accordance with the CEC's 2010–2105 Strategic Plan and will take into consideration the results and recommendations of the report from the Panel of Experts.

Project 3 - Environmental Assessment of NAFTA**Strategic Objectives:**

- Strengthen North American decision-makers' understanding of continental environmental issues of common concern.
- Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America.
- Improve regional and national coordination, including coordination between the CEC and NAFTA Free Trade Commission, through ongoing collaboration of trade and environment officials.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Quality Assurance Summary <i>Background paper:</i> The environmental effects of NAFTA and recommendations to inform future assessment work.	Secretariat review: October 2010 Party review–Quality assurance: November 2010 Publication: December 2010				
2. Continue supporting the collaboration among Trade and Environment officials through their working groups	Regular conference calls Two face-to-face meetings Continued sharing of experience amongst the Parties regarding their own work on <i>ex ante</i> assessments of trade and investment negotiations	Ongoing	Improved communication between environment and trade ministries Improved environmental assessments of NAFTA by the CEC and the Parties Better informed trade and environmental policies of the three Parties	Environment ministries Trade ministries	15,000	
Total Cost: \$150,000						

Project 3 - Environmental Assessment of NAFTA						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen North American decision-makers' understanding of continental environmental issues of common concern. Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America. Improve regional and national coordination, including coordination between the CEC and NAFTA Free Trade Commission, through ongoing collaboration of trade and environment officials. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Performance Measurement Indicators: <ul style="list-style-type: none"> Completion of report. Report being used and referenced by the NAFTA Parties and other stakeholders in their development of their policies and actions related to trade and environment., including CEC activities Adoption of improved methodology for assessing the environmental impact of the NAFTA Other actions being developed and implemented on the basis of findings from this work. 						Key Partners: TEWG, experts on environment and NAFTA, academic and research institutions, Panel of Experts

Project 4	Supporting the Growth of Green Building	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$90,000	Working Group(s) associated with this work Trade and Environment Working Group

Objective of Project

To foster green building markets in North America with particular reference to align regional standards¹ and/or rating systems for energy efficiency in buildings used to assess green building performance.

Although this project concentrates on energy efficiency, in general terms *green building* refers to the use of environmentally preferable practices and materials in the design, location, construction, operation and disposal of buildings. This applies to both renovation and retrofitting of existing buildings and construction of new buildings.

Background

Project History and Foundation

In 2008 the Commission for Environmental Cooperation (CEC) Secretariat published an independent (Article 13) report, *Green Building in North America: Opportunities and Challenges*.² This report and nine detailed background papers³ identified major challenges related to green building, as

¹ The term 'standard' used throughout this project refers to voluntary standards for rating a building's performance.

² http://www.cec.org/Storage/61/5386_GB_Report_EN.pdf

³ http://www.cec.org/Page.asp?PageID=1180&ContentID=&SiteNodeID=383&BL_ExpandID=&AA_SiteLanguageID=1

well as opportunities for green building to play a transformational role in addressing a number of environmental challenges, most prominently energy conservation and the reduction of greenhouse gas emissions.

The report notes that "green building addresses climate change and other energy-related air emissions in two basic ways: first (and most importantly) by reducing the amount of energy used to light, heat, cool and operate buildings and their appliances, and second, by substituting for what is currently mostly carbon-based energy with alternatives that do not involve the production of greenhouse gases and other harmful air emissions."⁴

The Secretariat report identified the following opportunities for the North American Free Trade Agreement (NAFTA) countries to work together to improve this sector:

- share resources and information;
- promote international trade in environmentally-preferable building products and proven-yet-underutilized technologies;
- support eco-labeling programs;
- pursue joint research opportunities; and
- disseminate research and training information.

⁴ Cf note 1, *supra*, p. 24.

Building on these conclusions, the CEC Secretariat initiated discussions in 2009 with the three countries to promote the alignment of energy efficiency ratings for buildings (Energy Star for Buildings in particular) throughout North America.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

The CEC's 2006–2008 green building work was guided by an international advisory group of prominent developers, architects, sustainability and energy experts, real estate appraisers and brokers, together with local and national government representatives. Background research for this work engaged a large and representative group of stakeholders: national green building councils; policy, leasing and housing authorities from Canada, Mexico and the United States; energy, construction, valuation, and finance experts; and certification and labeling bodies. Three public workshops in 2007 in the United States and Mexico brought hundreds of additional participants into the development of this report and related work. In 2009, the Secretariat held further discussions with experts from the Environmental Protection Agency (EPA), Natural Resources Canada (NRCan), *Secretaría de Medio Ambiente y Recursos Naturales* (Semarnat) and *Comisión Nacional para el Uso Eficiente de la Energía* (Conuee).

Advisory Groups Related to This Project

The Trade and Environment Working Group (TEWG) will provide oversight. The 2006–2008 Article 13 Advisory Group referenced above will not be reconstituted for the purposes of this project. Rather, to facilitate outreach efforts and support the highest quality work, the CEC will rely upon *ad hoc* advisors and officials working in this area.

Rationale

In Canada, Mexico, and the United States, commercial and residential building operations account for approximately 23, 30, and 40 percent of energy consumption, respectively. Every year, the energy used by buildings in North America results in the release of more than 2,200 megatons of carbon dioxide (CO₂), approximately 35 percent of the continent's total. Recent studies by the Intergovernmental Panel on Climate Change (IPCC), McKinsey & Company, and Vattenfall, indicate that improved

building practices are some of the quickest and cheapest ways to achieve significant reductions in greenhouse gas emissions, often with net economic benefit. Accordingly, a growing number of organizations, institutions, and government entities in North America are calling for aggressive energy performance improvements in the building sector. In short, green building represents some of the ripest “low-hanging fruit” for achieving significant and cost effective reductions in greenhouse gas emissions. Moreover, in many circumstances green building combines environmental gains with the opportunity for a positive economic return.⁵

The Secretariat's Green Building report identified opportunities for the NAFTA countries to work together to improve the building sector. One of the recommendations called for the support of the use of labels on green building performance. This project responds to this recommendation.

Recognizing that energy efficiency is the single most effective means to reduce a building's “carbon footprint,” the CEC Secretariat initiated discussions in 2009 with relevant agencies to discuss the potential for alignment of energy efficiency ratings for commercial buildings throughout North America (looking in particular at EPA's Energy Star benchmarking tool for buildings^{6,7}). Canada is currently working on an agreement with the US EPA to develop its own benchmarking system using US EPA's methodology for the Energy Star program. Discussions with Mexican officials have revealed that there is substantive interest in Mexico to consider such a methodology in the near future. Moreover, recognizing the rapid expansion of new residential construction in Mexico, this project will explore and share information on best practices on existing national and sub national programs and other initiatives related to energy efficiency rating systems and programs in the residential building sectors in North America (including Zero Energy Homes, Energy Star for Homes).

This project will comprise two activities to which the CEC is uniquely suited:

⁵ Green Building in North America: Opportunities and Challenges, p. 5.

⁶ ENERGY STAR benchmarking tool provides free tools and resources to help building owners measure the energy use of a facility and to compare a facility with other similar facilities.

⁷ Other programs on energy efficiency exist in Canada (EnerGuide for homes) and Mexico (CONUEE's standards to measure energy efficiency in Buildings).

- An expert workshop to support a common understanding among government agencies and other stakeholders on the potential benefits, opportunities and challenges of developing and facilitating the application of regional green building standards, rating systems for buildings (this project will focus on a specific building sector to be determined by the experts); and
- A follow-up technical workshop to develop a platform to adopt common energy efficiency metrics and rating systems for buildings (focusing specifically on the previously selected building sector).

Fulfillment of Strategic Objectives

The CEC 2005–2010 Strategic Plan calls for the promotion of efforts to improve private sector environmental performance as well as through model environmental compliance approaches. This project supports the following objectives of that Plan:

1. Information for Decision-making

Developing and promoting common green building metrics, standards and/or rating systems could strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern.

2. Capacity Building

Implementing the project could help foster improvement in private sector environmental performance through the use of model environmental compliance approaches.

North American Scope of the Project and Its Relevance to the Three Parties

Outputs from this project would be relevant to all NAFTA partners.

A sustained and larger-scale initiative to apply green building technology to existing building stock would produce significant environmental benefits. As underlined by the IPCC, improving the environmental performance of the building stock through existing and proven technology and practice could

greatly assist each country and North America as a whole in meeting greenhouse gas reduction targets.

CEC Niche and Value Added

Previous work on the subject of green buildings (specifically, development of the Article 13 report cited above) has resulted in subject matter capacity within the CEC as well as an extensive network of green building policy and technical experts. The CEC is well positioned to address this subject from a North American perspective, linking current national or sub-national initiatives relevant to the project description. To complete the project, the Secretariat will engage internationally recognized green building experts within the CEC's advisory group⁸.

Linkages with other CEC projects

N/A

Activities and Outputs

Key Activities

1. Host an expert workshop to support a common understanding among government agencies and other stakeholders on the potential benefits, opportunities and challenges of developing and facilitating the application of regional green building rating systems for a specific building sector.
2. Based on the outcome of the expert workshop, host a technical workshop with key experts to develop a platform to adopt regional metrics and rating systems for energy efficiency in commercial and residential buildings.

Expected outputs:

- Expert workshop
- Technical workshop

⁸ See

http://www.cec.org/Page.asp?PageID=834&ContentID=1380&SiteNodeID=341&BL_ExpandID=&AA_SiteLanguageID=1.

Target groups

Green building councils, federal governments of the three countries, certification and labeling bodies (e.g., Green Building Certification Institute), private-sector construction interests, and energy conservation constituencies.

Partners and stakeholders

Partners for the project could include former members of the CEC Advisory Group on green building, as well as from the extensive network of experts who participated in the CEC's previous work on green building. Government officials are expected to be the project's primary stakeholders.

Leveraging

Experts are expected to provide in-kind contributions to the project in the form of advice.

Additional resources have not been secured but will be sought during implementation of the project.

Outputs and Associated Timelines

The expert workshop will be held in winter 2010. The follow-up technical workshop will be held in spring 2010. An action plan will be developed by fall 2010.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Increased understanding of the potential of harmonized green building energy efficiency standards to promote market development, innovation and facilitate trade in this industry.

Performance Indicators

- Opportunities identified to improve the environmental performance of buildings and promote economic growth and trade through the adoption of regional green building rating systems.

Intermediate Outcomes

- Identification of an appropriate policy pathway leading to harmonization of green building energy efficiency rating systems.

Performance Indicators

- Policy pathway identified and outlined.

Final Outcomes

- Effective promotion of harmonized green building energy efficiency rating systems for commercial and residential buildings.

Performance Indicators

- Development of common rating systems and/or standards and metrics for measurement and management of building-related energy efficiency objectives.
- The proportion of certified green buildings stock in North America is increasing.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

This project is a follow-up to the CEC Secretariat's 2008 Article 13 report that identified opportunities for the NAFTA countries to work together to improve environmental performance in the building sector.

Target End Date for CEC Involvement

The work described herein is intended for completion in 2010.

Sustainability Beyond 2010

While project activities are limited to those described, it is expected that these activities will build interest and commitment among stakeholders and that stakeholders will act independently on project results. Achievement of the project's intended final outcome depends on promotion of the policy recommendations by other entities and their adoption by regulatory entities, and on uptake of market-based elements by the private sector.

Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Communications

N/A

Information Management

No database is expected to be produced from this activity.

Implementation Plan

PROJECT 4 – Supporting the Growth of Green Building

Strategic Objectives:

- Strengthen North American decision-makers' understanding of continental environmental issues of common concern.
- Improve private sector environmental performance through model environmental compliance approaches.
- Enhance North American trade in green products and services, with a view to improving environmental protection, promoting sustainable use of biodiversity, removing trade barriers and utilizing market-based approaches.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Host an experts workshop to support a common understanding among government agencies and other stakeholders on the potential benefits, opportunities, and challenges of developing and facilitating the application of regional green building standards and/or rating systems for a specific building sector, with a particular focus on energy efficiency.	Experts workshop	Winter 2010	Increased understanding of the potential of harmonized green building rating systems to promote market development, innovation and facilitate trade in this industry	Government agencies	45,000	No further activities planned beyond 2010
2. Based on the outcome of the experts workshop,	Technical workshop	Spring 2010	Identification of an appropriate policy pathway leading to harmonization of	Technical experts from government agencies	45,000	No further activities planned beyond 2010

PROJECT 4 – Supporting the Growth of Green Building						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen North American decision-makers' understanding of continental environmental issues of common concern. Improve private sector environmental performance through model environmental compliance approaches. Enhance North American trade in green products and services, with a view to improving environmental protection, promoting sustainable use of biodiversity, removing trade barriers and utilizing market-based approaches. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
host a technical workshop with key experts to develop a platform to adopt regional metrics, standards, and/or rating systems for energy efficiency in a specific building sector.			green building rating systems for buildings			
Total Cost: \$90,000						
Performance Measurement Indicators: <ul style="list-style-type: none"> Opportunities identified to improve the environmental performance of buildings and promote economic growth and trade through the adoption of regional green building rating systems with a focus on a specific building sector. Policy pathway identified and outlined. Development of common rating systems and/or standards and metrics for measurement and management of building-related energy efficiency objectives. An increase in the proportion of certified green building stock in North America. 						Key Partners: Members of the CEC's network of green building experts Green building associations Government agencies

Project 5	Trade Flows of North American Used Electronics	Responsible Project Manager at the CEC Secretariat	
Planned Allocation	C\$100,000	Working Groups associated with this work	Trade and Environment Working Group Experts Group (of Party-appointed electronic experts)

Objective of Project

General objective:

To characterize and/or quantify the flow of used electronics equipment within North America and between North America and the rest of the world.

Specific objectives:

To develop a framework and a methodology to characterize and/or quantify used electronics product flows.

Background

Project History and Foundation

Used electronic components and products, as they become obsolete and are discarded, are a public issue and, in certain instances, an environmental concern. Multiple approaches are being developed to encourage sound end-of-life management at the subregional level where it does not exist. Challenges exist to ensure adequate management of the volume of consumer electronics being discarded each year. In view of this, the Parties have decided to focus the CEC work on used electronics in North America. This work is also supportive of the objectives stated in the 2007 NAFTA Free Trade Commission (FTC) meeting where trade ministers (or their equivalent) from the three countries agreed to “work with the CEC to explore ways to address the environmental impacts of the lifespan and disposal of consumer electronics.”

In December 2009, the CEC completed a feasibility study to evaluate different methodologies that could be used to characterize or quantify/qualify the flow of used electronics equipment in North America.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

One of the main challenges in characterizing the flow of used electronics equipment is the sheer number of actors in the marketplace. Thus, the first activity proposed in this project will identify participants in used electronics trade flows. These include companies that collect used electronics, arrange auction batches of used electronics, transport and export used electronics, and broker used electronics at ports of exit and entry, as well as trade associations and government departments such as Customs staff at ports and in selected state/provincial governments. It is helpful to map the major flows of used electronics, including the participants more frequently involved in the material chain.

Advisory Groups Related to This Project

The governments have appointed a group of governmental experts on electronic waste who will review the outputs of this work. The CEC’s Trade and Environment Working Group (TEWG) will provide general oversight for this project.

Rationale

One of the challenges for the effective management of used electronics relates to the availability of information on trade flows; in particular,

concerns are rising about the transboundary movement of used electronics equipment, notably from developed to developing countries. However, there is very little data on the exports of used electronics equipment. This equipment includes diverse products that move through complex channels within, and outside, North America. Used electronics include products and components destined for recycling as well as electronic products for reuse or refurbishment. No organization has yet conducted systematic data on North American flows of used electronics. Thus, there is no sufficiently specific picture that might allow North American countries to distinguish whether used electronics are being exported for reuse, refurbishment, recycling or disposal, or in what quantity.

Better information on imports and exports of used electronics would inform policy development in the three countries and help identify the most important issues pertaining to the governance of this sector. For example, it would allow determination of whether a large percentage of North American used electronics are exported to countries with primitive recycling practices, which might necessitate consideration of further action. It could also contribute to an informed decision about the need and scope for additional CEC work in this area.

Recognizing that the complexity and the lack of information on this issue may limit the effective characterization and/or quantification of trade flows, this project follows a step-by-step approach. The first phase (2009) consisted of a feasibility study that assessed opportunities and challenges for an effective characterization of trade flows of North American used electronics.

On the basis of its findings, the experts group decided to continue with the development of a framework and methodology to characterize and/or quantify used electronics product flows and to validate the methodology.

The work undertaken under this project does not anticipate consideration of the environmental hazards associated with used electronics or regulatory and compliance issues related to these materials, since these topics have been discussed in other fora or require expertise different from that needed to assess trade flows.

Fulfillment of Strategic Objectives

The CEC's 2005–2010 Strategic Plan¹ called for an increase in the capacity of the three countries to identify and address trade-related environmental concerns to achieve mutual benefits for trade and the environment, and improve collaboration among the three countries in these areas through generation of relevant information.

Information for Decision-making

This project will provide input for decision-makers on used electronics policy and will strengthen the capacity of North American policy makers to understand continental environmental issues of common concern.

Trade and Environment

The project will provide relevant information for policy makers in an area that has a clear trade dimension. The Free Trade Commission (FTC) has explicitly requested the CEC assist it in its work on electronics, and this project responds to NAAEC Article 10(6)e that requires the Council to assist the FTC in such environment-related matters.

North American Scope of the Project and Its Relevance to the Three Parties

The exports of used electronics from North America are particularly germane to the CEC because of the significant volume of used electronics generated in our continent and because of potential impacts of North American exports to other countries. Also, the need for collaboration in this area has been noted by NAFTA trade officials as indicated earlier.

CEC Niche and Value Added

The CEC's history of working at the trilateral level and assisting the Parties to integrate comparable environmental information make it an appropriate agency to examine the challenges of looking at sound environmental management of used electronics.

¹ *Looking to the Future: Strategic Plan of the CEC, 2005–2010.*
http://www.cec.org/Storage/84/8020_2005-2010-Strategic-plan_en.pdf, p.12

Linkages with Other CEC Projects

Trade and Enforcement Working group (including the Hazardous Waste Task Force) will be kept informed of ongoing activities.

Activities and Outputs

Key Activities

- Develop and validate a methodology and a framework to characterize and/or quantify used electronic product flows.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- A methodology and framework to analyze the flows of used electronics

Performance Indicators

- Framework and methodology are developed.

Intermediate Outcomes

- The framework and methodology developed is reviewed by the Parties.

Performance Indicator

- The methodology is analyzed and discussed by the Parties.

Final Outcomes

- A validated framework and methodology to analyze flows of used electronics.

Performance Indicator

- Framework and methodology are developed, validated, finalized and approved by the Parties.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

The activity planned for 2010 will provide the Parties with a validated methodology to analyze trade flows of used electronics. The methodology will be available for dissemination, as appropriate.

Target End Date for CEC Involvement

This activity is intended for completion in 2010 and no further activities are planned beyond 2010.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein. The methodology developed by this project could be used for implementation by agencies within any of the CEC's partner countries, or in support of the work plans of the FTC. Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Information Management

No databases will be developed as part of this activity.

Implementation Plan

PROJECT 5- Trade Flows of North American Used Electronics						
Objective – To identify the possibilities of quantifying used electronics product flows.						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Develop and validate a methodology and a framework to characterize and/or quantify used electronics product flows	A study developing and validating a methodology and a framework to characterize and/or quantify trade flows of used electronics product flows	Winter 2009–spring 2010	A validated methodology and a framework to characterize and/or quantify used product flows	Regulatory agencies dealing with electronic waste, at both federal and state levels, as they will be able to apply the methodology for their own assessments	100,000	Apply methodology developed in this project
	Quality Assurance Summary <i>Background paper:</i> Methodology and a framework to characterize and/or quantify trade flows of used electronics product flows	Secretariat review: July 2010 Party review–Quality assurance: August 2010 Publication: September 2010				
Total Cost: \$100,000						
Performance Measurement Indicators: - Framework and methodology are developed, validated, finalized and approved by the Parties						Key Partners: Appointed government experts on used electronics

Project 6 Trade and the Enforcement of Environmental Laws	Responsible Project Manager at the CEC Secretariat
Planned Allocation C\$390,000	Working Group(s) associated with this work North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), Hazardous Waste Task Force (HWTF), and the North American Wildlife Enforcement Working Group (NAWEG).

Objective of Project

This project has three objectives:

- Expedite the movement of legal materials across borders.
- Improve enforcement capacity so that persons or entities illegally shipping or attempting to ship hazardous waste and materials, ozone-depleting substances, protected species and wildlife, or other illegal materials that could threaten human health or the environment in the territories of the NAFTA Parties are stopped from doing so and appropriately penalized.
- Promote better information on North American movements of hazardous wastes and materials.

In 2010 it is proposed to complete outstanding tasks and activities from 2009 and bring this project to an appropriate conclusion.

Background

Project History and Foundation

The North American Agreement on Environmental Cooperation (NAAEC) underlines the Parties' support for the environmental goals and objectives of NAFTA, including creating an expanded and secure market for goods and services in a manner consistent with environmental protection and

conservation, promoting sustainable development, and strengthening the development and enforcement of environmental laws and regulations.

Council Resolution 96-06 established the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), composed of senior-level environmental enforcement officials. Since 1996, the EWG has identified the need for improved capacity to track transboundary movements of hazardous wastes and materials and ozone-depleting substances (ODS) and enforce laws regulating them, and for cooperative approaches concerning the enforcement of domestic laws, including those that implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), through continuous work with the North American Wildlife Enforcement Working Group (NAWEG).

Council Resolution 03-08 extends cooperation in the area of hazardous wastes and materials, directing the Secretariat to work with the Parties on specific measures to promote the environmentally sound management and tracking of hazardous wastes.¹ In response, the EWG established an *ad hoc* Hazardous Waste Task Force (HWTF) to assist with related measures in the CEC's work program. The HWTF, composed of senior officials and IT

¹

http://www.cec.org/Page.asp?PageID=122&ContentID=1016&SiteNodeID=270&BL_ExpandID=&AA_SiteLanguageID=1.

specialists in the management area of hazardous wastes, will continue to assist in the implementation of the hazardous waste and materials components of this project.

The CEC Strategic Plan 2005–2010 aims to improve compliance with existing environmental laws and strengthen the capacities of the three countries to manage environmental issues of common concern.

To date, and including completion of 2009 activities, the CEC has made progress across several initiatives:

- A pioneering project for the electronic exchange, among governments, of export request, or notification, and consent for importation information concerning hazardous wastes and materials. This will improve data quality, reduce administrative burdens and replace a cumbersome paper-based approach that contributes little to improving enforcement.
- Consolidation of online training to build capacity and disseminate information on regulations and enforcement techniques concerning ozone-depleting substances (ODS) and hazardous wastes and materials for customs and environment officials.²
- Consolidation of the scope and process for sharing information on non-compliant imports entering North America.
- Workshops and a report on environmental compliance in partnership with trade corridor organizations and the regulated community involved in transboundary trade of environmentally-regulated materials.
- A search and mapping tool to monitor trends of off-site transfers of pollutants and substances and a report for the use of tracking technology of such shipments across North American borders.

These activities have supported the Parties in progress towards addressing threats from illegal products, non-compliant imports or banned substances entering North America; improving coordinated enforcement capacities; and levelling the playing field for business across the three countries by reducing potential advantages from lack of effective enforcement of environmental laws.

² See: <http://www.cec.org/ods>.

Key Stakeholders, Resource Leveraging and Partnerships (to date)

Stakeholders include all the government enforcement and compliance agencies represented in the CEC's Enforcement Working Group and Hazardous Waste Task Force. The Royal Canadian Mounted Police in Canada, the Federal Police and the Attorney General's office (PFP and PGR, respectively) in Mexico, and the Department of Justice in the US are also key stakeholders of the environmental enforcement authorities in the three countries. Customs agencies are also key players that can either benefit from or leverage the project.

Commercial trade corridor associations³ are also significant stakeholders active in promoting continental trade. Accordingly, the CEC has engaged these organizations to promote and enhance effective compliance assurance in North America.

Advisory Groups Related to This Project

This project will benefit from the engagement and oversight of the EWG and affiliated enforcement agencies, as well as the participation of customs officials in specific tasks.

The HWTF will continue to assist in the development and oversight of the portions of this project devoted to electronic exchange of data for the import/export of hazardous waste and materials.

Rationale

According to the International Crime Threat Assessment conducted by the US government, local and international criminal syndicates worldwide earn between US\$22 and \$31 billion annually from hazardous waste dumping, smuggling proscribed hazardous materials, and exploiting and trafficking in protected natural resources. To date, it is estimated that global smuggling of

³ Trade corridor organizations followed on the footsteps of NAFTA, typically organized by businesses and metropolitan and state government agencies. The most important of these include: Cascadia, <http://www.cascadiaproject.org/>; Canamex, <http://www.canamex.org/index.asp>; Plains-to-Plains <http://www.portstoplains.com/>; *La Entrada al Pacifico* (LEAP), <http://www.la-entrada-al-pacifico.com/>; NASCO, <http://www.nascocorridor.com/>; Border Trade Alliance <http://thebta.org/>; Gulf of Mexico States Accord, <http://www.gomsa.org/>; Quebec/New York Corridor, http://www.corridors.ca/index_en.html; Canam-BTA, <http://www.canambta.org/>.

ODS range from 7,000 tons to 14,000 tons a year, with an economic profit of US\$25 to \$60 million to organized crime syndicates. Much of that illegal trade is targeted to enter North America.

Port congestion in Los Angeles and Long Beach in the United States has been cited as a reason why more Asian imports are entering North America through Mexican ports on the Pacific coast, later making their way into the US and Canada. As non-compliant imports could potentially enter North America via Mexican ports, customs and environmental officials from the three countries are committed to share intelligence data and information to protect the region from such commodities and materials. By developing these activities the Parties also contribute to regional strengthening of border security and global environmental strategies, such as the green Customs carried out by UNEP.

In response to the circumstances cited above, officials and inspectors require access to state-of-the-art information and techniques to act against illegal shipments and non-compliant imports of banned substances. CEC support includes development of online training in the field of hazardous wastes and materials, aimed at environmental and customs inspectors, to raise awareness of the regulations and specific activities for effectively enforcing regulations in the three countries. This also benefits other government agencies and brings a common level of understanding and approach to the import and export of hazardous waste and materials.

With mapped information on the facilities exporting and importing hazardous waste and materials across North America boundaries, enforcement agencies will be in a better position to trace routes and frequency of shipments while directing resources and efforts to promote legal trade.

The electronic exchange of hazardous waste/materials export/import information will assist in providing the best information and techniques to avoid illegal shipments of hazardous waste/materials across the borders. Replacing the current paper-based approach with an electronic one will improve overall export/import data quality, enhance enforcement capabilities, support border security, facilitate the adoption of more-advanced tracking technologies, and allow governments to reduce administrative burdens.

Each of the management authorities is devoting resources to build their own part of the information exchange system. The CEC is supporting the Parties

to build the framework for such exchange to occur. Once constructed, the CEC will deliver the project for the Parties' use and future development.

In general, a more informed public is in a better position to comply with environmental regulations. In this regard, the CEC is in a good position to bring together policy and enforcement authorities with the private sector from the three countries, to promote and facilitate trade and compliance of environmentally regulated commodities and materials across North America.

The CEC is a conduit for information and understanding of environmental law in North America. It is also in an optimal position to communicate the provisions of these laws and regulations through its website.

Fulfillment of Strategic Objectives

This project addresses information for decision making, capacity building and trade and environment in support of the CEC's 2005–2010 Strategic Plan.

This is accomplished by ensuring that officials in customs, environment, and law enforcement are informed of environmental laws affecting trade, that exporters and others have easy access to environmental regulations, and by training customs and other law enforcement officials to be better able to expedite legal shipments across borders. The project responds to the concerns of stakeholders concerned with the improvement of environmental laws, regulations, procedures, policies and practices and who are working to enhance compliance with, and enforcement of, such laws and regulations.

North American Scope of the Project and Its Relevance to the Three Parties

The NAAEC underlines the Parties' support for the environmental goals and objectives of NAFTA, including creating an expanded and secure market for goods and services in a manner consistent with environmental protection and conservation, promoting sustainable development, and strengthening the development and enforcement of environmental laws and regulations.

CEC Niche and Added Value

Environmental enforcement officials need reliable data and intelligence information to support coordinated action and effectiveness. The CEC is in a unique position to facilitate the exchange of such information among countries. With these activities the CEC will consolidate its efforts to address

non-compliant imports entering North America and will reach out to customs and other enforcement agencies in the three countries.

Given its mandate and institutional expertise, the CEC is uniquely positioned to create synergies with private enterprises that are using monitoring and Radio Frequency Identification (RFIDs) systems to explore the potential of technology to foster environmental compliance and promote law enforcement. Trade corridor associations are ideal platforms for assessing environmental performance from a strategic perspective, while allowing governments to reach out to enterprises involved in the import/export of merchandise

Linkages with Other CEC Projects

This project supports the capacity of the three countries to identify and address trade-related environmental concerns and achieve mutual benefits for trade and the environment.

Activities and Outputs

Key Activities/Outputs and Associated Timelines

Task	Output	Timeline
1	Report summarizing the 2009 international workshop on controlling smuggling and illegal traffic in ODS in North America.	QAPP of the report to be completed in the spring 2010.
2	CEC online hazardous wastes and materials training course.	QAPP of module 1 completed and full delivery of module 2 by the summer 2010
3	Enhance cooperation and exchange intelligence and information on non-compliant imports entering North America.	Officials meeting to occur in May 2010. Further action TBD.

4	Electronic exchange of information on the import/export of hazardous wastes and materials	Full delivery for adoption and day-to-day operation by the countries in fall 2010.
5	Analyze the utility of the search and mapping tool for shipments of hazardous wastes and materials and determine the need for any further development	Summer 2010
6	Finish preparation of the judicial training publication and disseminate it	Summer 2010
7	Participate at a trade corridor association (NASCO) meeting to disseminate the results of the compliance activities. Further work on compliance assurance and dissemination of information to be determined in May and at the EWG annual meeting.	Summer (June) and fall 2010
8	Support for the annual meeting of the EWG. Webpage updates.	Fall 2010

Target Groups and Stakeholders

- Top senior enforcement officials from the three countries
- Law enforcement agencies from the three countries
- Prosecutors
- Customs agencies
- National Autonomous University of Mexico and other universities and research institutions
- Trade corridor associations
- Nongovernmental organizations

- Customs brokers
- Entrepreneurs and the private sector involved in transboundary trade across North America

Leveraging

In 2009 partners added significant in-kind support to accomplish project related tasks and activities. The Mexican government, under the framework of its national plan for the elimination of CFCs, administered by UNIDO, directed financial support for the execution of activity 1.

In 2010 the National Autonomous University of Mexico will publish the proceedings of previous judicial seminars, assisting the institutionalization of environmental training for the judiciary in Mexico.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Consolidation of techniques to identify and combat illegal shipments of non-compliant goods and commodities from outside North America;
- Support for the Parties' efforts to promote regulatory compliance pertaining to environmentally regulated materials and commodities across North American borders, while reaching out to the private sector;
- Identification of the potential and opportunities for using cutting-edge technology to monitor environmental compliance and increase the understanding of illicit activities, in order to effectively address illegal traffic of environmentally regulated materials;
- Support for the Parties in identifying sources/facilities for hazardous wastes and materials—both generating and also receiving—in order to streamline action and foster environmental compliance and effective law enforcement;
- Instituting environmental training for Mexican judges and prosecutors, with the support of North American partners;
- Facilitate exchange of information on lessons learned and best practices in North America in environmental law enforcement and compliance;

- Exchanging information between environment, transport and customs officials in assessing environmental impacts from increased cross-border trade and transportation-related infrastructure development; and
- Reaching out to the public concerned with transboundary shipments of merchandise across North American borders, to facilitate trade and ensure environmental compliance and monitoring.

Intermediate Outcomes

- To combat illegal traffic in ODS and hazardous wastes and materials, authorities better prepared to stop illegal shipments into North America;
- More awareness and understanding of the trends and activities, sectors, and commodities that do not comply with North American environmental regulations;
- Better coordination between authorities in addressing threats from non-compliant imports and shipments arriving from outside North America;
- Governments that can act effectively, based on the best information available, to enforce compliance with environmental regulations related to the management of hazardous wastes and materials;
- Authorities better prepared to institutionalize environmental training for judges and prosecutors in Mexico, contributing to an application of environmental regulations effective throughout North America;
- North American public better informed about trilateral efforts in environmental law enforcement and compliance;
- Trade across borders facilitated but compliance with environmental regulations ensured; and
- Assurance that shipments of merchandise across North American borders are environmentally sound.

Final Outcomes

- Environmentally safer and greener borders: authorities better informed on illegal trafficking, trends, source areas, and monitoring challenges posed by ODS and hazardous wastes/materials, in order to ensure effective enforcement in North America;

- Substantive contribution of the Parties to effective enforcement, compliance and application of law by the judiciary throughout North America;
- Effective involvement of senior officials in enhancing cooperation in environmental law enforcement and compliance;
- A better-protected North American environment through better-coordinated enforcement authorities;
- Reduced environmental impacts from harmful substances throughout North America; and
- Sustainable trade across North American borders and effective enforcement of environmental regulation in our shared region.

Performance Indicators

Indicators vary according to the task.

Task 1

- Report from the 2009 workshop on illegal trade and smuggling of ODS available for appropriate stakeholders.

Task 2

- CEC hazardous wastes and materials online training course completed and fully operational; and
- Number of trainees in the course and of hits on the course webpage.

Task 3

- Number of commodities identified as potentially suspect and the number identified as non-compliant in two or three countries;
- Number of agencies participating and exchanging information on non-compliant imports and the number of intelligence reports produced and shared;
- Successful operational teleconferences, meetings and other communications effectively exchanging information and practices related to this project; and
- Increased number of enforcement cases generated from initial intelligence reports and added value for effective law enforcement practices in the three countries.

Task 4

- Capability to electronically exchange information required for the request for export and consent for import of hazardous wastes/materials; and
- Number of electronic transactions effectively transmitting hazardous wastes/materials export/import data among the Parties.

Task 5

- Number of webpage hits (as an indication of the extent of the tool's use).

Task 6

- Publication 2010 of the proceedings from the 2005–2008 judicial seminars, including conclusions and recommendations for institutionalizing environmental training for the judiciary in Mexico.

Task 7

- Number of enterprises contacted and informed about environmental compliance assurance in North America; and
- Number of agencies participating in coordinated efforts to monitor environmental compliance.

Task 8

- Number of attendees at the EWG annual meeting;
- Number of agreements and determinations reached at the EWG annual meeting;
- Coordinated action plans derived from the EWG annual meeting;
- Updated webpage on the environmental law enforcement and compliance program;
- Number of hits on this webpage per month; and
- Number of activities performed involving information exchange and best practices shared with governmental and nongovernmental organizations and agencies.

Timetable and Project Completion

Task 1 concluded in 2009. The report, to be completed in 2010, will allow the Parties to consider the need for further action.

Task 2 The first module of the training course will go through quality assurance review in the first quarter of 2010 and will be posted on the CEC website. The second module will be delivered to the Parties in 2010 for further development and use.

The heads of the enforcement agencies will meet in May 2010 to discuss coordinated action under Task 3 and to assess potential engagement of other key enforcement agencies.

Task 4 will be completed in the fall in 2010.

Determination of coordinated work under Task 5 for compliance monitoring using search and mapping tools will be assessed in May 2010.

The report produced in Task 6 will be publicly released in 2010.

The Secretariat will disseminate information produced under Task 7 on compliance assurance activities at the NASCO annual meeting to occur in June in Des Moines, Iowa, US. Further action and development in this area will be assessed at the meeting of the heads of the EWG in May 2010.

Task 8. Support for the annual meeting of the EWG and update content of the enforcement and compliance working group web pages.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein.

After 2010 the corresponding environmental enforcement agencies in each country will adopt and utilize, on their own basis, the tools and information resulting from the implementation of this project. Similarly, each agency will adopt the tools and information on enforcement and compliance derived from this project and will conduct outreach to the North American public in this field, as appropriate.

Future activity in support of these or related tasks will be considered in relation to the CEC's 2010–2015 Strategic Plan.

It is to be noted that a decision not to support these activities under the CEC post-2010 would require the cancellation of Council Resolution 03-08 that directs the Secretariat to work with the Parties to promote the environmentally sound management and tracking of hazardous wastes and materials.

Communications

The participating agencies will be responsible for communicating the development and results of the course. The CEC will provide outreach and post the results of its activities via

http://www.cec.org/Page.asp?PageID=751&ContentID=&SiteNodeID=533&BL_ExpandID=&AA_SiteLanguageID=1.

Information Management

The CEC will support the Parties by facilitating the timely exchange of information. To that end, the Secretariat will use CEC Web resources to outreach to Party enforcement agencies and stakeholders.

The CEC will support the Parties in developing the schema and framework for the exchange of electronic information and will support national efforts toward successful transmittal of data. The CEC will develop those processes for the assurance of the quality of the information to be posted at the CEC website.

Also, the CEC will continue to work with the North American Atlas Coordinating Group to support a data layer illustrating those facilities that import/export hazardous wastes/materials across the borders. Further, the CEC will continue to provide online resources to help facilitate the adoption of the hazardous wastes/materials online course, and other online information products, such as the Environmental Law Enforcement and Compliance area of the CEC website.

Implementation Plan

PROJECT 6–Trade and the Enforcement of Environmental Laws

Strategic Objectives:

- Make environmental information more widely available in order to facilitate local, national and regional action.
- Strengthen capacities to improve compliance with wildlife laws.
- Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas.
- Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 1 Completion of a report from the 2009 workshop on North American ODS traffic	Shared expertise and knowledge of illegal shipments of ODS, for customs and environmental enforcement inspectors among officials from the three countries; dissemination of the CEC online training course	Spring 2010	Authorities in the three countries will be better prepared to address the global ban of CFCs and the phase-out of HFCs Increased awareness and understanding of regulations of the Montreal Protocol, to address illegal trafficking of ODS Increased capabilities to identify illegal shipments of ODS	Environmental enforcement agencies Environmental management authorities Customs agencies in the three countries Prosecutors and other law enforcement officials and intelligence units in the three countries North American public	5,000	This activity will conclude in 2010.
	Quality Assurance Summary <i>Report:</i> Training activities and opportunities, to effectively enforce ODS regulations.	Secretariat review: February 2010 Stakeholder/Expert review: March 2010 Party review–April 2010 Public review: April 2010 Peer review: April 2010 Party review–Quality assurance: April-May 2010 Publication: May 2010				

PROJECT 6–Trade and the Enforcement of Environmental Laws**Strategic Objectives:**

- Make environmental information more widely available in order to facilitate local, national and regional action.
- Strengthen capacities to improve compliance with wildlife laws.
- Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas.
- Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 2 Completion of the CEC hazardous wastes and materials online training course Meeting to review operation, including customs inspectors and officials before delivery	Fully operating course online Module one will be available online and module two delivered to the Parties for further development and use	Spring 2010	Increased awareness of the international and regional regulations on hazardous waste and techniques and procedures for effective enforcement in North America	Environmental enforcement agencies Environmental management authorities Customs agencies Prosecutors and other law enforcement officials North American public	10,000	This activity will conclude with the delivery of the course.
	Quality Assurance Summary <i>Database/ Dataset/Online service:</i> Hazardous waste online training course	Stakeholder/Expert review: January 2010 Party review–Drafting: February 2010 Party review–Quality assurance: March 2010 Publication: May 2010				

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 3 Consolidation of the process for identifying and sharing information on noncompliant imports entering North America and addressing common threats to health and the environment	Refining and strengthening the channels, scope and process for the exchange of information leading to the identification of key sectors and areas and stakeholders	Meeting of key officials to occur in May 2010	Enhanced coordination to address threats from non-compliant imports in a common North American approach Increased awareness of the trends of non-compliant, environmentally regulated materials, substances, products and by-products	Environmental enforcement agencies Environmental management authorities Customs agencies in the three countries. Prosecutors and other law enforcement officials and intelligence units in the three countries North American public	35,000	To be assessed at the May 2010 meeting

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 4 Completion of the project on the electronic exchange of information on the import/export of hazardous wastes/materials in North America	Delivery of the electronic system to exchange the export notice and consent information among the Parties The stakeholders will meet three times in 2010: to assess actions and identify potential challenges; to review implementation of the system; and to test the project	The project will be delivered to the countries in the fall of 2010	Parties will be able to quickly provide export notice and consent information on a North American level and apply cutting-edge technology in monitoring environmental compliance	Environmental enforcement agencies. Environmental management authorities Customs agencies in the three countries Customs, transport and environmental inspectors North American public	285,000	The Parties will conclude this project with the final delivery of the electronic exchange of information.
Task 5 Assessment of compliance monitoring using search and mapping tools	Determination on the scope, usefulness and reach of search and mapping tools	May 2010.	This mapping tool may help identify needs for development of infrastructure to diminish risks associated with transportation of hazardous wastes and materials	Environmental enforcement agencies Environmental management authorities Private-sector stakeholders Customs agencies in the three countries Prosecutors and other law enforcement officials and intelligence units in the three countries	0	Further development of this and other search and mapping tools to be assessed

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 6 Finish preparation of and disseminate the publication (proceedings) of the 2005, 2007 and 2008 judicial seminars conducted by the CEC	Publication of the CEC Judicial Seminars conducted under the CEC's 2005–2010 strategic framework (seminar document to be published by UNAM)	Summer 2010	More awareness of legal aspects on the part of the judiciary and more preparedness in effective law application and enforcement	Environmental management authorities Environmental enforcement authorities Judges Prosecutors, bar associations, and legal practitioners Universities and other research and training centers North American public in general	5,000	This activity will conclude in 2010.
	Quality Assurance Summary <i>Report</i> from the judicial seminars	Secretariat review: November 2009 Stakeholder/Expert review: December 2009 Party review–Drafting: December 2009 Public review: January 2010 Peer review: February 2010 Party review–Quality assurance: February 2010 Publication: May 2010				

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Task 7 Determination of coordinated work in the compliance promotion field	Dissemination of information on compliance assurance in North America at the annual meeting of NASCO	June 2010.				
Task 8 Support to the EWG annual meeting Outreach and dissemination of information on compliance assurance	Annual meeting of the EWG in the fall	Fall 2010				
Total Cost: \$390,000						

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Performance Measurement Indicators: Task 1 <ul style="list-style-type: none"> ▪ Report from the 2009 workshop on illegal trade and smuggling of ODS in North America, available for appropriate stakeholders. Task 2 <ul style="list-style-type: none"> ▪ CEC online hazardous wastes/materials training course completed and fully operational. ▪ Number of trainees in the course and of hits on the course webpage. Task 3 <ul style="list-style-type: none"> ▪ Number of commodities identified as potentially suspect and the number identified as non-compliant in two or three countries. ▪ Number of agencies participating and exchanging information on non-compliant imports and the number of intelligence reports produced and shared. ▪ Successful operational teleconferences, meetings and other communications effectively exchanging information and practices related to this project. ▪ Increased number of enforcement cases generated from initial intelligence reports and added value for effective law enforcement practices in the three countries. Task 4 <ul style="list-style-type: none"> ▪ Capability to electronically exchange information required for the request for export and consent for import of hazardous wastes. ▪ Number of electronic transactions effectively transmitting hazardous waste/materials export/import data among the Parties. Task 5 <ul style="list-style-type: none"> ▪ Number of webpage hits on this tool (as an indication of the extent of its use). 					Key Partners: United Nations Environment Program. United Nations Industrial Development Organization. National Autonomous University of Mexico. Environmental enforcement agencies of the three countries. Environmental management authorities. Trade corridor associations and their membership, including local authorities. Customs agencies in the three countries. Prosecutors and other law enforcement officials and intelligence units in the three countries. Interested public in these fields.	

PROJECT 6–Trade and the Enforcement of Environmental Laws						
Strategic Objectives: <ul style="list-style-type: none"> • Make environmental information more widely available in order to facilitate local, national and regional action. • Strengthen capacities to improve compliance with wildlife laws. • Increase the capacity of the three countries to identify and address trade-related environmental concerns, in order to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas. • Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and the regional levels in North America. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
<p>Task 6</p> <ul style="list-style-type: none"> ▪ Publication of the proceedings of the 2005–2008 judicial seminars, including conclusions and recommendations for institutionalizing environmental training for the judiciary in Mexico. <p>Task 7</p> <ul style="list-style-type: none"> ▪ Number of enterprises reached and informed about environmental compliance assurance to in North America. ▪ Number of agencies participating in coordinated efforts to monitor environmental compliance. <p>Task 8</p> <ul style="list-style-type: none"> ▪ Number of attendees to the EWG annual meeting. ▪ Number of agreements and determinations reached at the EWG annual meeting. ▪ Coordinated action plans derived from the EWG annual meeting. ▪ Updated webpage on the environmental law enforcement and compliance program. ▪ Number of hits on this webpage per month. ▪ Number of activities performed involving information exchange and best practices shared with governmental and nongovernmental organizations and agencies. 						

Project 7	Strengthening Wildlife Enforcement in North America	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$75,000	Working Group(s) associated with this work Environmental Enforcement and Compliance Working Group (EWG). North American Wildlife Enforcement Working Group (NAWEG).

Objectives

This project has three objectives:

- Stop illegal shipments of wildlife, in advance and at borders, and improve enforcement capacity to ensure that persons or entities that ship or attempt to ship such illegal materials are appropriately penalized.
- Develop training materials and exchange programs on topics such as wildlife inspection and investigative and identification techniques.
- Conclude CEC support for Mexico's efforts to institute a domestic capacity-building program on wildlife enforcement, and assess the training activities completed in 2009.

Background

Project History and Foundation

The North American Wildlife Enforcement Group (NAWEG) was created in 1994, when representatives of the *Procuraduría Federal de Protección al Ambiente* (Profepa—in Mexico), the Canadian Wildlife Service (CWF) and the United States Fish and Wildlife Service (US FWS) agreed to formalize the exchange of intelligence information and training related to wildlife regulations enforcement.

NAAEC Article 1 directs the Parties to support the environmental goals and objectives of NAFTA. These include creating an expanded and secure market

for goods and services in a manner consistent with environmental protection and conservation, promoting sustainable development, and strengthening the development and enforcement of environmental laws and regulations. In this vein, the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), created by Council Resolution 96-06,¹ recognized the NAWEG as necessary to:

- assist in the implementation of the wildlife enforcement portions of the CEC program;
- serve as a contact with the Trilateral Committee for Wildlife and Ecosystems Management and Conservation (Trilateral Committee); and
- act as the North American representative to Interpol on wildlife enforcement.

Key Stakeholders, Resource Leveraging and Partnerships (to date)

CEC activity in this area has engaged stakeholders in the enforcement community in each of our three countries responsible for wildlife and environmental law enforcement. Work to date has brought them together to determine needs for coordinated action against illegal trade of wildlife and its products across North America.² This work has also engaged the Federal

¹ See:

http://www.cec.org/Page.asp?PageID=122&ContentID=1177&SiteNodeID=279&B_L_ExpandID=&AA_SiteLanguageID=1.

² See: <http://www.usdoj.gov/opa/pr/2008/October/08-enrd-916.html>.

Police (PFP) and the General Attorney's Office (PGR) in Mexico and the US FWS and the Department of Justice (DOJ) in the United States.

Rationale

The international trade in wildlife is a multibillion-dollar business. The two major categories of traded items are live specimens of wildlife species and products derived from wildlife species. North America is a central player in the international wildlife market as both a consumer and supplier of products.

Canada, Mexico and the United States not only engage in direct cross-border commerce in various endemic North American species, but also serve as trade conduits for wildlife products from other regions and continents. The increase in trade among the three countries in North America requires close cooperation to manage the legal wildlife trade, including legal products and byproducts, as well as to combat illegal trade for the sound management and conservation of the our region's wildlife resources.

From 1992 to 2002, listings of species under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) increased from 723 to 1,264 (up 75 percent) and the number of CITES member nations rose from 115 to more than 160.³ In this context, North America is required to enhance enforcement of wildlife regulations, including the CITES Convention, and to share expertise and best practices to use investigative, intelligence and forensic information-gathering resources to detect, disrupt, and deter wildlife trafficking.

Fulfillment of Strategic Objectives

Capacity Building

This project directly supports the Capacity Building priority of the Strategic Plan 2005–2010, specifically the delivery of one of three specified multi-year initiatives in Mexico: “training wildlife enforcement officers and other stakeholders, as appropriate.” Training of wildlife officers of the environmental attorney's office in Mexico (Profepa) is being accomplished with support and advice from the wildlife enforcement agencies of Canada (Environment Canada, Wildlife Branch, and the US Fish and Wildlife Service). Under the 2007 Operational Plan, the CEC conducted a Capacity Building Needs Assessment for the Enforcement of Mexican Wildlife Laws.

³ See: <http://www.fws.gov/le/AboutLE/OLEStrategicPlanDec2005.pdf>.

In early 2008, and with the results of such assessment, Canada and the US supported Mexico in selecting training curriculum objectives, approach and course elements. The CEC Secretariat supported the scope and approach for the training initiative; Profepa identified the Mexican National Institute for Penal Sciences (*Instituto Nacional de Ciencias Penales—Inacipe*) to give official recognition to the studies undertaken; and the Mexican Ministry for Public Service (*Secretaría de la Función Pública*) included the course in the general formation curricula for wildlife inspectors in Mexico.

Trade and Environment

This project also supports the Trade and Environment priority of the CEC Strategic Plan. North America is central to the international wildlife market as a consumer and supplier of wildlife products, and is a natural target for Asian and South American wildlife and related products and byproducts.

North American Scope of the Project

Collaboration at an operational level among Canadian, Mexican and US authorities has proven to be indispensable when considering both legal and illegal trade in wildlife and genetic resources. The United States is recognized as one of the most important centers of the wildlife trade, and Canada and Mexico are sometimes used to import and re-export shipments of wildlife intended to reach that market. Both Canada and Mexico represent high-potential exporters of legally traded wildlife and genetic resources. Wildlife trade in all three countries is regulated by national laws and through the CITES Convention, a treaty signed by all three countries. North American countries are then a potential target for illegal shipments of wildlife and wildlife products.

In the field there have been major successes in combating illegal traffic of protected species. NAWEG-coordinated operations have led to imprisonment of smugglers and more protection of our borders and shared region by combating criminal organizations exporting wildlife resources not only across North America but through our borders to Asian and European markets as well.⁴

The EWG has recognized the need for further actions under NAWEG and the opportunity to catalyze the support and expertise of Canadian and US experts

⁴ See: <http://www.usdoj.gov/opa/pr/2008/October/08-enrd-916.html>

and senior enforcement officials to enrich and share best practices and knowledge in combating cross-border wildlife smuggling.

Enforcement officials from each Party convened in November 2009 to discuss and analyze North American priorities for more effective, coordinated enforcement action to counter illegal traffic in the region.

CEC Niche and Added Value

The NAWEG, with the support of the CEC Secretariat, has been a vehicle to focus support of effective wildlife enforcement across the region.

As a result of this focus and the continued engagement of senior enforcement officials, via NAWEG and EWG, the CEC is well suited to support fulfillment of NAAEC objective 1(g), to “enhance compliance with, and enforcement of, environmental laws and regulations.” Moreover, this project represents specific fulfillment of the CEC’s 2005–2010 Strategic Plan (5.2): “Specifically, the CEC’s goal is to strengthen the capacities of the three countries to manage environmental issues of common concern. Its objectives over the next five years—focusing on Mexico—are to cooperate to: 1. Strengthen capacities, where needed, to improve compliance with wildlife laws...” Thus, this project “will benefit all three countries: more effective Mexican enforcement of its wildlife laws, for example, will help protect migratory species that the three countries share...”

Linkage with Other CEC Projects

Potential cross-references and linkages are with the Trade and the Enforcement of Environmental Laws initiative, not only because in Canada and in Mexico two of the key agencies are involved in those initiatives, but also because intelligence-led work can bring benefits to the other project and vice-versa.

Activities and Outputs

Key Activities

The activities under this project are intended to facilitate the exchange of information, expertise and best practices for more effective and coordinated wildlife enforcement across North America.

Under **Task 1**, The Secretariat will complete an assessment of lessons learned and support dissemination of the training model, in order to replicate this approach where appropriate.

Under **Task 2**, the CEC will support an *ad hoc* official’s group to exchange intelligence and relevant data on species, trends, patterns, *modi operandi* and routes commonly used for illegal wildlife traffic across North America. This group includes environmental administrative authorities and law enforcement officials from federal enforcement agencies in the three countries.

Under **Task 3**, the CEC will update information and facilitate collaboration of the NAWEG activities and accomplishments; and will facilitate outreach to other international agencies, nongovernmental organizations, academia, research institutes, forensic laboratories and local enforcement agencies. Information and features of the CEC website will be available for future training/reference to officials of each country.

Target Groups and Stakeholders

- Enforcement officials from the three countries
- Law enforcement agencies from the three countries
 - National Institute for Penal Sciences (Mexico)
 - Prosecutors
 - Customs agencies
 - Forensic laboratories
 - Universities and research institutions
 - Nongovernmental organizations

Leveraging

Each public institution will leverage resources for the completion of the training course. Leverage is also to occur in the conformation of the *ad hoc* group for addressing wildlife smuggling across North America.

Outputs and Associated Timelines

Task	Output	Timeline
1	Report on wildlife enforcement training reach, lessons learned, opportunities and challenges	To be completed by the Spring 2010
2	Coordinated action plans to confront illegal wildlife traffic in North America	Execution of action plans to start in January 2010; action plans to be reviewed in May 2010 and completed with CEC support by December 2010
3	Support to the annual meeting of the NAWEG Website update	Meeting of the NAWEG co-chairs to occur in May 2010. 2010 website updates and features launched as developed

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Increased awareness and knowledge of the regulations, best practices and expertise pertaining to controlling the traffic of wildlife, including products and byproducts;
- Increased capacity to stop, in advance and at borders and crossing points, illegal shipments of wildlife, including products or byproducts;

- A North American approach to address the threats to biodiversity conservation and wildlife from the import/export of illegal shipments, including products and byproducts; and
- Authorities and officials better prepared and coordinated to address from a North American perspective, threats to biodiversity conservation and wildlife, including products and byproducts that could potentially jeopardize North American endemic, protected and endangered species.

Intermediate Outcomes

- The Parties better prepared to combat illegal traffic of wildlife across borders, and better supplied with information on the patterns, trends and *modi operandi* of syndicates and criminal organizations that threaten the viability of endemic, protected and endangered species of wildlife across North America.;
- Better and more efficiently coordinated enforcement of wildlife regulations across North America; and
- More information available to decision makers and public on the achievements of enforcement personnel and a more unified approach across North America in the enforcement of wildlife regulations.

Final Outcomes

- Fewer illegal shipments of wildlife across North American borders;
- Increased understanding on the trends, areas and patterns of illegal activity in violation of CITES regulations;
- Reduction in the rate of wildlife criminal offenses and activity in North America; and
- Coordinated action across North America to guarantee environmental governance and effective wildlife enforcement.

Performance Indicators

- Report on the first multi-module training session completed and published;
- Number of institutions participating in intelligence data sharing;
- Phone conferences and agreements reached to address illegal wildlife trade in North America;

- Number of coordinated action plans for wildlife enforcement from a North American approach;
- Coordinated actions and joint operations leading to illegal shipments stopped and offences punished through cooperative work;
- Number of hits on/consultations of the CEC-NAWEG website; and
- Agreements reached at the annual NAWEG meeting.

Timetable, Project Completion and Sustainability Beyond

Task 1 Report on wildlife enforcement training reach, lessons learned, opportunities and challenges to be completed Spring in 2010.

Task 2 will be implemented through coordinated action plans identified in November 2009. Preliminary results of this task will be discussed and assessed in May 2010 at the annual meeting of the NAWEG.

Task 3 will start early in 2010. The annual meeting is to be held in May 2010.

Target End for CEC Involvement

Training activities concluded in 2009. Appropriate intelligence data sharing to occur in 2010.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein.

After 2010 the corresponding wildlife enforcement agency in each country will support NAWEG's cooperative enforcement efforts, on its own, and at

the Trilateral Committee for Wildlife and Ecosystem Conservation and Management as appropriate.

After 2010, each agency will adopt the tools and information on wildlife enforcement and compliance derived from this project and will conduct outreach to the North American public in this field, as appropriate.

Communications

The participating agencies will be responsible for communicating the development and results of the course. The CEC will provide outreach through its website to the North American public, the private sector, academia and research institutions.

The Secretariat will provide information on the completion of activities and agreements among the Parties and provide results of its activities on the CEC website.

Information Management

The CEC-NAWEG website was redesigned in 2009. It will be updated and will include information sharing features as necessary throughout the year.

Implementation Plan

PROJECT 7 – Strengthening Wildlife Enforcement in North America

Strategic Objectives:

- Strengthen capacities to improve compliance with wildlife laws
- Increase the capacity of the three countries to identify and address trade-related environmental concerns to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Publication of the report on training reach, lessons learned opportunities and challenges	The report will be submitted for Quality Assurance and publication in February 2010.	Spring 2010	<p>This project contributed to the achievement of the capacity building pillar of the Strategic Plan 2005–2010. The Parties will be able to present these training efforts as a model of international cooperation for capacity building and will be able to document and disseminate lessons learned from the development of these activities.</p> <p>The report will be used by Mexico to follow up and complete institutionalization of wildlife training.</p>	<p>Wildlife enforcement agencies in the three countries</p> <p>Local environmental law enforcement agencies</p> <p>Prosecutors and other law enforcement officials who participate in the effort</p>	\$10,000	Report to be completed and published in 2010
	<p>Quality Assurance Summary.</p> <p><i>Report:</i> Report on training reach, lessons learned, opportunities and challenges for wildlife training.</p>	<p>Stakeholder/expert review: February 2010</p> <p>Party review: March 2010</p> <p>Party review–Quality assurance: April 2010</p> <p>Publication: May 2010</p>				

PROJECT 7 – Strengthening Wildlife Enforcement in North America						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen capacities to improve compliance with wildlife laws Increase the capacity of the three countries to identify and address trade-related environmental concerns to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
2. Support to the <i>ad hoc</i> official's group to foster improved understanding of illegal activities to combat and prevent illegal trade of wildlife in North America	Coordinated action plans to address illegal wildlife traffic in North America	Spring 2010	Coordinated action against illegal trade of wildlife across North America Engagement of key stakeholders at a regional level to exchange intelligence on trends, routes, species and relevant data to curb illegal wildlife trade in the region	Wildlife enforcement agencies. Wildlife prosecutors and law enforcement agencies Federal police corporations General attorneys' offices National Security Officials	\$40,000	The co-chairs of the NAWEG will meet in May 2010 to assess potential endeavors for the future and will decide on the necessary activity to complete action plans by December 2010
3. Facilitate exchange of best practices and information among North American wildlife enforcement agencies and other relevant stakeholders	2010 updates to the CEC website Support and outreach to the NAWEG and the North American public	Starting 2010 and completed by December 2010	Intergovernmental cooperation, contributing to greater policy coherence and more efficient use of government resources aligned to curb illegal trade in wildlife in the region Dissemination of best practices on wildlife enforcement and compliance monitoring	Enforcement officials from the three countries Law enforcement agencies from the three countries Prosecutors, customs agencies, forensic laboratories, universities and research institutions Nongovernmental organizations	\$25,000	The co-chairs of the NAWEG will meet in May 2010 to assess potential endeavors for the future
Total Cost: \$75,000						

PROJECT 7 – Strengthening Wildlife Enforcement in North America						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen capacities to improve compliance with wildlife laws Increase the capacity of the three countries to identify and address trade-related environmental concerns to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
<p>Performance Measurement Indicators:</p> <p>Task 1</p> <ul style="list-style-type: none"> Report on the first multi-module training session completed and published. <p>Task 2</p> <ul style="list-style-type: none"> Number of institutions participating in intelligence data sharing. Phone conferences and agreements reached to address illegal wildlife trade in North America. Number of coordinated action plans for wildlife enforcement from a North American approach. Coordinated actions and joint operations leading to illegal shipments stopped and offenses punished through cooperative work. <p>Task 3</p> <ul style="list-style-type: none"> Number of hits on/consultations of the CEC-NAWEG website. Agreements reached at the annual NAWEG meeting. 						<p>Key Partners:</p> <p>Wildlife Enforcement branches of the three countries, United Nations Environment Program and World Customs Organization, the CITES Secretariat, prosecutors, customs, public and national security agencies, prosecutors and local enforcement agencies</p>

Project 8	Sound Management of Chemicals	Responsible Project Manager at the CEC Secretariat	
Planned Allocation	C\$543,000 Completion of 2009 Outputs: C\$10,000 Total: C\$553,000	Working Group(s) associated with this work	Sound Management of Chemicals Working Group (SMOC WG)

Objective of Project

The Sound Management of Chemicals (SMOC) initiative provides a framework for “regional cooperation for the sound management of the full range of chemical substances of mutual concern throughout their life cycles, including by pollution prevention, source reduction and pollution control.”¹

The CEC Council mandated a new direction for the initiative in 2008, moving from a single substance assessment and risk reduction mode to a more integrated approach. This new direction focuses on four major areas of work:

1. Establishing a foundation for chemicals management in North America;
2. Developing and implementing a sustainable regional approach to monitoring, including environmental and human biomonitoring;
3. Reducing the risk from chemicals of concern to North America; and
4. Improving the environmental performance of sectors.

These areas are compatible with the Plan of Implementation of the World Summit on Sustainable Development (WSSD) for 2020 and the subsequent

¹ CEC Council Resolution 95-05: Sound Management of Chemicals, http://www.cec.org/Page.asp?PageID=122&ContentID=1189&SiteNodeID=280&BL_ExpandID=&AA_SiteLanguageID=1.

Dubai Declaration on a Strategic Approach to International Chemicals Management (SAICM). The new direction puts emphasis on improving outreach to stakeholders as partners, aligning with North American priorities, and establishing stronger linkages with key international initiatives such as within the United Nations Environment Programme (UNEP).

Background

Project History and Foundation

- Council Resolution 95-05 mandated the development of North American Regional Action Plans (NARAPs) for certain persistent and toxic substances as a priority for the CEC. It also established a working group, composed of two senior officials selected by each Party, which is concerned with the regulation or management of toxic substances and is tasked to work with the CEC to implement the decisions and commitments set forth in the Resolution. Over the next several years, work on current NARAPs will continue, as will the role of the SMOC Working Group (WG) in advising the Council and the Parties on NARAP implementation.
- Subsequent work pursuant to Council Resolution 08–06 led to the adoption of the new agenda and direction for the SMOC WG.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

- A major part of the new strategic direction of the SMOC WG is the emphasis on continued input from stakeholders on current and future initiatives. The SMOC WG proposes to engage interested stakeholders in discussions at its public meeting through panel sessions and throughout the year by maintaining correspondence and seeking input on specific projects from interested and expert stakeholders.
- For 2010, the key nongovernmental stakeholders include chemical industry associations of the three countries as well as indigenous communities, NGOs, and academia.
- Long-term capacity building projects, such as the development of a Mexican chemicals inventory, will be developed with international funding agencies considered as possible resource contributors. The CEC will provide seed monies and the Parties may contribute in-kind expertise and other resources as deemed appropriate.
- The new SMOC strategy includes advancing the Parties' shared international objectives, including those under the Strategic Approach to International Chemicals Management (SAICM) as well as other international initiatives.
- Under the 2008 *Statement of Intent on North American Chemicals Cooperation*, the North American Ministers for the Environment committed to a Framework for Regulatory Cooperation that furthers existing policy commitments and activities under the Sound Management of Chemicals (SMOC) initiative of the Commission for Environmental Cooperation (CEC), and enhances informal coordination and cooperative efforts at the bilateral and trilateral levels.

Advisory Groups Related to This Project

- The SMOC WG, supported by its subsidiary task forces and teams responsible for delivering NARAPs and other priority projects, will continue to provide recommendations to Council for the sound management of chemicals in North America. Currently, work under active NARAPs is conducted by implementation task forces as directed by SMOC. SMOC projects in support of Council Resolution

08-06 will depend upon the continued trilateral participation of experts from the Parties with the support of the Secretariat.²

Rationale

In general terms, the SMOC initiative endeavors to reduce risks of exposure to toxic chemicals for the North American public and their environment.

Fulfillment of Strategic Objectives

The SMOC initiative continues to support the CEC Council's strategic priorities of providing sound scientific information for decision makers, capacity building to provide such information while considering trade and environment concerns as a trilateral priority, all in the context of a North American chemicals management perspective.

Scientifically sound and periodically validated information obtained or derived by the SMOC initiative will help policy-makers prioritize options for managing chemicals of mutual concern as they make decisions relating to risk, from both trilateral and domestic perspectives.

Capacity will continue to be strengthened by improving and validating the comparability, reliability, relevance and availability of data and information on toxic chemicals in the North American environment. The program direction will focus on quality assurance and quality control of analytical methodologies and on data management and reporting. The Parties will have access to validated information that will provide a foundation from which to make decisions regarding the sound management of chemicals.

The SMOC initiative supports work that responds to the Council's priorities. It aims to promote the sound management of chemicals while facilitating the movement of chemicals and their products across borders without compromising human health or the environment.

North American Scope of the Project and Its Relevance to the Three Parties

While the realignment of the SMOC initiative in 2008 places considerable emphasis on capacity building, all three Parties will benefit from the

² More information can be found on the CEC website at:
http://www.cec.org/Page.asp?PageID=1225&SiteNodeID=237&BL_ExpandID=&A_A_SiteLanguageID=1.

improvements in environmental quality resulting from the significant reduction in risk of chemicals such as lindane, mercury, and dioxins, furans and hexachlorobenzene (D/F/HCB). Also, the development of comparable tools, data and expertise for the management of chemical substances will enhance regional capacity for the safe management of chemicals in North America, benefiting all three Parties.

CEC Niche and Value Added

Cooperation on the management of toxic chemicals continues to be a key initiative of the Parties. The North American approach to sound management of chemicals has been a model for other international fora and provides a mechanism for disseminating and collecting information of importance to the Parties on other domestic and international initiatives.

The SMOC initiative will position the CEC and the SMOC WG to align this important area of work with the CEC's upcoming 2010–2015 Strategic Plan and the global direction of the WSSD Plan of Action to 2020.

Activities and Outputs

Key Activities

Key activities will be aligned with the 2008 Council-approved SMOC direction. Ongoing efforts for NARAP implementation of specific chemicals initially required by Council, i.e., implementation of the mercury and lindane NARAPs; development and implementation of the dioxins, furans and hexachlorobenzene (D/F/HCB) risk reduction initiative; will be joined by the development and implementation of new strategies for catalyzing cooperation on substances of mutual concern. A priority will be the ongoing development of the national chemicals inventory for Mexico anticipated to be functional by 2011.

Target Groups

Target audiences include Salud and-Health Canada, as well as INE and IMTA of Semarnat, Environment Canada and the US EPA.

Nongovernmental target audiences include industry stakeholders such as

CCPA, ACC and ANIQ as well as academia, ENGOs, indigenous communities, and the general public.³

Partners, Stakeholders

Partners participating in the implementation of the SMOC initiative through membership in the working groups and implementation task forces include Health Canada, Environment Canada, US EPA, and Mexico's Semarnat, INE and Salud. Participating stakeholders will be determined based on the SMOC stakeholders' analysis completed in 2009. The SMOC program will also foster continuing partnerships with the GLBTS and Border 2012.⁴

Leveraging

The SMOC Project relies on the in-kind contributions of experts from the Parties, as well as guidance from stakeholders, such as JPAC, and interested citizens. Members of academia contribute expertise on an as-needed basis. Leveraging of significant resources from the World Bank, PAHO and the GEF will be considered with seed money and expert support to Mexico from the SMOC project. Under SAICM's Quick Start Program, Mexico has accessed funds (UK, DEFRA for US\$100K) to promote further development of an electronic database for the chemical inventory project, based on support from the CEC. Similar considerations are being sought from international funding institutions for the Proname initiative in Mexico and the lindane alternatives proposal for 2010.⁵

Outputs and Associated Timelines

Associated outputs and products include:

- in 2010, the SMOC WG will have two face-to-face meetings, including one with stakeholders, as part of the continued development of a common North American approach to chemicals management by 2020;

³ Salud—*Secretaría de Salud* (Secretariat of Health); INE—*Instituto Nacional de Ecología* (National Institute of Ecology); IMTA—Mexican Institute of Water Technologies; Semarnat—*Secretaría de Medio Ambiente y Recursos Naturales* (Secretariat of the Environment and Natural Resources); US EPA—US Environmental Protection Agency; CCPA—Canadian Chemical Producers Association; ACC—American Chemicals Council; ANIQ—National Association of Chemical Industries (Mexico)

⁴ GLBTS—Great Lakes Binational Toxics Strategy.

⁵ DEFRA—UK Department of Environment, Food, and Rural Affairs; Proname—*Programa Nacional de Monitoreo y Evaluación* (National Program for Monitoring and Evaluation)

- a closure report for the mercury NARAP;
- an advanced workshop on sources on D/F/HCB;
- a co-funding proposal seeking support for a GEF-sponsored project to phase out lindane where possible in Mexico;
- further preparations for a North American chemicals conference to be held in 2011 will broaden the stakeholder base, improve linkages with other regional and international chemicals initiatives, and create opportunities for dialogue among experts and decision-makers on specific issues related to chemicals management;
- an inventory of polybrominated diphenyl ethers (PBDE) releases completed in 2009 in Mexico will be assessed to determine whether Parties will take trilateral action to reduce risks of PBDEs in North America;
- design and application of a survey of chemicals producers and collection of chemicals' import data from the Customs offices of Mexico; and
- other capacity building projects developed as a result of emerging priorities.

The SMOC project has a subsidiary body on Environmental Monitoring and Assessment, which it directs to conduct the monitoring and assessment aspects of these programs as will be found in the Environmental Monitoring and Assessment (EM&A) project description.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Government agencies involved in the sound management of chemicals are apprised of developments with their North American partners.
- North Americans are more aware of the impacts of toxic substances on human health and the environment.
- Greater involvement of the public and private sectors in reducing the risk of exposure.
- Information is available for developing risk reduction strategies and decision making on chemicals management.

- Dialogue among technical experts related to chemicals management.

Performance Indicators

- Active involvement of the SMOC Working Group members.
- Stakeholder participation at annual public session and stakeholder support activities of the SMOC Working Group.
- Progress is made toward the development of the chemicals inventory in Mexico targeting roll-out in 2011.
- Assessment of inventory of PBDE sources in Mexico and recommendations for reducing risk.

Intermediate Outcomes

- In aligning with the 2008 Council direction and the context of a North American chemicals management perspective, longer-term, fiscally sustainable initiatives will promote Mexico's capacity to participate in risk reduction strategies of substances deleterious to human health and the environment. The sustainability of Mexico's Proname and lindane initiatives will benefit from seed financing by the CEC and the in-kind support from Canada and the United States in approaching international funding institutions such as the World Bank and the Global Environment Facility (GEF).
- The chemicals-in-commerce inventory will put Mexico on an equal footing with similar programs already existing in Canada and the United States. Such information enhances national awareness of risks associated with new and existing toxic chemicals, citizens' ability to assess risks and to be adequately prepared for chemical exposure emergencies.
- Workshops on atmospheric modeling will permit scientific dialogue among experts from the three countries, leading to greatly enhanced knowledge of pollutant pathways and exposure potentials in the region.

Performance Indicators

- A comparable North American chemicals inventory.

Final Outcomes

- Reduction in risk of exposure to the priority toxic substances and to substances determined to be of common concern.
- Improved infrastructure, nationally and trilaterally, for managing environmental and human health exposures to toxic substances will lead to reduced residues of toxics in traded foodstuffs and other commodities.
- Promotion of regional programs on a more international scale as examples of successful initiatives to manage chemicals.

Performance Indicators

- Indication of whether the various aspects of the SMOC initiative have achieved their desired final result will be known principally through feedback from the Parties and stakeholders, as well as from continuous monitoring and testing. Comparisons of baseline data with current or future values will indicate a measure of success or renewed efforts.
- Workshops and projects will be seen as successful if overall program sustainability is achieved—in other words, if the Parties or stakeholders establish the project or necessary measures for capacity building as a sustainable domestic priority.
- Success will also be manifested in the improved environmental policies that result from scientifically validated information being utilized by decision makers.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

In response to the need to strengthen the Parties' abilities to assess and manage chemicals of mutual concern, the implementation of the approved NARAPs on lindane and mercury, and further development in strategic direction on dioxins/furans and HCB as well as the needs assessment for polybrominated diphenyl ethers proceed according to the following timelines established for these initiatives.

Target End Date for CEC Involvement

The mercury NARAP is proposed for closure as a CEC initiative in 2010, lindane by 2016, and D/F/HCB by 2014.

The target date for completion of the PBDE assessment work and termination of development task force activities is 2011.

Further work on the risk reduction of PBDEs may be conducted after 2010 pending results of assessment activities and SMOC WG discussion.

The chemicals-in-commerce inventory is slated for completion and transfer to Mexico as a sustainable domestic initiative in 2011. A contract to examine the legal basis for creating an inventory in Mexico was completed in 2009 and will be analyzed for implementation of recommendations in 2010. Once this analysis is complete, the group should be in a better position to determine the timelines associated with amending laws and regulations in Mexico.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein. Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project descriptions.

In the event that the CEC's 2010–2015 Strategic Plan does not include any further support for the Sound Management of Chemicals initiative, the key activities such as foundation development, regional monitoring, toxics risk reduction and sector improvements could be transferred to existing national programs of the Parties. However, Mexico has indicated that it would not be able to continue all SMOC tasks currently indicated for implementation and current tasks would have to be prioritized, with several capacity building efforts likely deferred. For example, the Proname initiative and Mexico's role in regional monitoring would depend on implementation through its own domestic priorities. Funding from international funding institutions (e.g., GEF) has been promoted through Semarnat. Monitoring improvements and greater capacity to model air transport of toxics could possibly be shifted to the agenda of other bilateral and international programs such as SAICM and other UNEP Conventions, as appropriate. The trilateral chemical inventory effort would need more time for initiation which could be developed more fully in Mexico if greater support from the current SAICM funding by other parties (including UK development aid) would be available, although

reductions in support from that forum are expected to continue

Monitoring and assessment would need to be developed under domestic priorities. Mexico's membership in established laboratory validation programs with Canada and the USA would be suspended.

It is to be noted that a decision to not support SMOC activities in the future would require the amendment or cancellation of Council Resolution 08-06, as it provides specific direction for a North American agenda for chemicals management and refers to progress reports in 2011, 2014, 2017 and 2019.

Communications

All SMOC undertakings contain communication strategies that are developed in conjunction with the CEC's Communications Office. A communications team has been established with the SMOC project in order to focus on SMOC-related issues and initiatives. Experts from the Parties and the CEC are focused on developing stronger linkages to the relevant stakeholders and will begin implementing a communications strategy slated for completion in 2009. Recognizing the new direction of the SMOC initiative, the currently available outreach methods and material have been re-examined and redrafted, as necessary. Project implementation groups will work with the Secretariat and the Communications team to disseminate information generated from actions of the initiative to national decision makers, industry, academia and stakeholders.

Information Management

Most data generated via the NARAPs and other SMOC activities are of a technical nature and require validation through statistical analysis and trends development, as applicable. Electronic storage and retrieval mechanisms for items such as an updated inventory of mercury, lindane will be required. Information products and reports developed through the SMOC initiative will be available in electronic format on the CEC website.

Implementation Plan

PROJECT 8 - Sound Management of Chemicals							
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
1. SMOC WG Operations	1.1 Conduct Spring SMOC WG meeting	1.1.1 Face to face meeting with SMOC WG officials	First week of April	Increased awareness and knowledge, optimal use of resources and greater policy coherence for future North American SMOC activities; implementation of the path forward. Coordinated trilateral program of cooperation on chemicals management for health and environmental benefit. Promotion of sound management of NA chemicals of mutual concern	US EPA, Semarnat, Cofepris, EC, HC,	20,000	
	1.2 Conduct autumn SMOC WG meeting	1.2.1 Face to face meeting with SMOC WG officials 1.2.2 Stakeholder Meeting in conjunction with the SMOC WG officials autumn meeting	2 nd week of September 2010 September	Assessment of 2010 program implementation and planning of 2011 OP Active participation of public and stakeholders. Continued stakeholder engagement in SMOC programs to enable discussion on strategies, including direct involvement in program outcomes and provision of a direction for future program development	US EPA, Semarnat, EC, HC. SAICM (UNEP), and all stakeholders including industry, academia, indigenous communities and NGOs.	30,000 50,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
	1.3 Planning and coordination of activities	1.3.1 SMOC WG conference calls	Bi-monthly starting in January	Continued implementation of ongoing projects and coordination of the path forward.	US EPA, Semarnat, Salud, EC, HC.	1,500	
		1.3.2 SMOC staff conference calls	Monthly, starting in January	Briefing of SMOC WG principals on SMOC outputs.		2,000	
2. Outreach and Engagement	2.1 General coordination with the communications team.	2.1.1 Conference calls	Bi-monthly	A coordinated Outreach and Engagement Strategy for the CEC's SMOC program		1,500	
	2.2 Inform stakeholders in a timely and transparent way about key SMOC program activities and opportunities for participation	2.2.1 Distribute public meeting agenda at least 60 days in advance 2.2.2 Provide meeting materials to stakeholders at least 30 days in advance 2.2.3 Publish	60 days in advance of the stakeholder meeting 30 days in advance of the stakeholder meeting 45 days after the	Improved access and increased engagement of stakeholders Improved outreach and engagement for delivering information to the public and keep industry, environmental organizations, indigenous communities and the public apprised of North American chemicals management initiatives.	US EPA, Semarnat, Salud, EC, HC, the Secretariat, and all stakeholders	Coordination funded from subtask 2.1	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
		meeting minutes in a timely manner so stakeholders can share with their constituents 2.2.4 Report-out to stakeholders on follow-through on commitments made	meeting December				
	2.3 Implementation of the communications strategy	2.3.1 Promotion of SMOC public meetings. 2.3.2 Internet transmission of SMOC public meetings	July September	Improved access and increased engagement of stakeholders Improved outreach and engagement for delivering information to the public and keep industry, environmental organizations, indigenous communities and the public apprised of North American chemicals management initiatives.	US EPA, Semarnat, Salud, EC, HC, and all stakeholders.	5,000 10,000	
	2.4 Preparations for a North American Chemicals Conference (NACC) to occur	2.4.1 Conference calls 2.4.2 Expert contracting, selection of	Bi-monthly, starting in January November	The NACC will create a venue in which to discuss and publicize North American progress on reaching the sound management of chemicals	US EPA, Semarnat, Salud, EC, HC, and expanded SMOC stakeholders such as indigenous	1,500 38,500	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
	in 2011	venues, outline of agenda		WSSD 2020 goal, seek to improve engagement and communication with stakeholders and offer an opportunity for input	communities, industry, academia, NGO's as well as international stakeholders		
3. Foundation Development	3.1 General coordination with the Chemical Inventory Team	3.1.1 Conference calls 3.1.2 Coordination with DEFRA for regional meeting	Bi-monthly April	Development of an inventory compliant with Mexican domestic regulations and compatible with similar inventories in Canada and the US Interim support and promotion of a nationally sustained chemicals inventory for Mexico Completed assessment of first DEFRA inventory exercises	Semarnat, Cofepris, Sagarpa, <i>Secretaría del Trabajo y Previsión</i> (STPS), industry and public	1,500 5,000	
	3.2 Build capacity to provide a compatible and comparable trilateral chemicals management approach: emphasis on chemical inventory in Mexico	3.2.1 Design and application of a survey of chemical producers in Mexico 3.2.2 Collection of data on chemicals importation from the accounting and	October November	List of chemicals and domestic production volumes; list of chemical producers Informed decision on data incorporation List of chemicals and import volumes in Mexico	Semarnat, Cofepris, Sagarpa, <i>Secretaría del Trabajo y Previsión</i> (STPS), industry and public	35,000 20,000	

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Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
		gross records of the Customs offices of Mexico					
4. Reduce Risks from Chemicals	4.1 Coordination of the PBDE team	4.1.1 Conference calls	Bimonthly	Coordinated implementation and path forward for regional management	US EPA, Semarnat, Cofepris, EC, HC	1,500	
		4.1.2 Face-to-face PBDE team meeting	October	Completed needs assessment		10,000	
	4.2 Collaboration with Mexico to assist in assessing the country's needs in addressing PBDEs	4.2.1 Characterization of PBDE content in a typical landfill in Mexico for estimating potential emissions to complement the PBDE inventory	April to October	Quantified types and volumes of PBDE containing wastes in a typical Mexico landfill	Semarnat, Salud, US EPA, EC, HC, stakeholders	35,000	
	4.3. Coordination of the Hg NARAP closure	4.3.1 Conference calls	Monthly	Coordinated approach to NARAP closure	US EPA, Semarnat, Cofepris, EC, HC	2,000	
		4.3.2 Face-to-face meeting in conjunction with 4.5.1	March	Path forward developed for linkages to global initiatives (UNEP) through a new CEC strategic direction		10,000	
		4.3.3 Final mercury close-out report developed	March	Informed decision making		20,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
		for Council 4.3.4 Report on the lessons learned from the Hg NARAP process	November	Information shared with other agencies/countries		5,000	
		Quality Assurance Summary (4.3.3) <i>Report:</i> The close-out report will summarize the efforts undertaken to reduce risk of exposure to mercury as described in the 2000 NARAP.	Secretariat review: April 2010 Stakeholder/Expert review: May 2010 Peer review: June 2010 Party review–Quality assurance: July 2010 Publication: September 2010				
	4.4 Conduct a study of secondary and primary elemental mercury supply in Mexico	4.4.1 Report on the primary and secondary elemental mercury supplies in Mexico	November	Increased understanding on the flow of mercury in Mexico	Semarnat, Salud, US EPA, EC, HC	50,000	
	4.5 Mercury releases inventory workshop in Mexico (in conjunction with 4.3.2)	4.5.1 Present results of the National Hg Releases Inventory to soil, water and air in	March	Detailed inventory of Mercury in environmental compartments in Mexico	Semarnat, Salud, US EPA, EC, HC, stakeholders	10,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
		Mexico					
	4.6 The Lindane Task Force will implement activities, review and prioritize projects under the NARAP.	4.6.1 Conference calls 4.6.2 Face-to-face meeting	Quarterly September	Coordinated approach to NARAP implementation Increased expert dialogue and prioritized actions Lindane risk reduction initiatives implemented	US EPA, Semarnat, Cofepris, EC, HC	1,500 10,000	
	4.7 Phase-out of lindane, where possible, and promote alternatives where available, especially in the Mexican health sector	4.7.1 Co-funding proposal seeking support for a GEF sponsored project	November	Significant funding support for Mexican Lindane Initiative Sustained viability of the Mexican national project	US EPA, Semarnat, Cofepris, EC, HC	50,000	
	4.8 D/F/HCB strategy implementation	4.8.1 Conference calls 4.8.2 Face-to-face meeting 4.8.3 Final document describing strategic direction	Quarterly February November	Coordinated approach to NARAP implementation Increased expert dialogue and prioritized actions Risk reduction Program implemented D/F/HCB initiative implemented	US EPA, Semarnat, Cofepris, EC, HC	1,500 15,000 5,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
	4.9 Quantification of toxics emissions from specified sources/sectors	4.9.1 Conduct a follow-up to 2009 workshop with North American emission experts 4.9.2 Emission factors available through peer collaboration to modeling experts in Mexico and Mexican national emissions uniquely quantified	August November	Improved capacity to assess and quantify emissions from unique sources in Mexico Increased awareness and knowledge of the sectors covered in Mexico Enhanced knowledge of emission sources, on a trilateral basis	US EPA, Semarnat, Cofepris, EC, HC	20,000 10,000	
	4.10 Adjust existing emissions inventories to build an interface and trilateral compatibility to be used in modeling within the region	4.10.1 A compiled, compared and rearranged emissions inventory of D/F/HCB for use in models considering existing inventories done by the three countries.	July	A comparable emission inventory for the region to be used in models to assess source/receptor attribution for D/F/HCB and Hg emissions for some case studies. Regional collaboration and exchange of ideas for models that could be used to answer questions for the region.	Semarnat, INE, Salud, Mexican officials in other related disciplines, academia and the public	15,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
	4.11 Air toxics modeling expert group development	4.11.1 Report on assessment of case studies on contribution of local and regional sources in D/F levels; to include data from Mexican D/F Monitoring Network	August	Increased capacity in the region to use models to determine the transport and to determine the relative contribution of D/F/HCB	Semarnat, INE, Salud, Mexican officials in other related disciplines, academia and the public.	15,000	
	4.12 Compile North America D/F air monitoring information	4.12.1 Report on compiled, quality assured data from D/F air monitoring network in Mexico.	June	<p>Improved comparability of D/F in ambient air in North America.</p> <p>Regional assessment based on monitoring data on D/F ambient air in Mexico and in the region (once data is integrated and analyzed along with existing data from Canada and USA)</p> <p>Baseline for background ambient levels of D/F in Mexico to evaluate Stockholm Convention efficacy.</p>	US EPA, Semarnat, INE, Cenica, EC, HC	20,000	
	4.13 Identifying sources of HCB in Mexico	4.13.1 Identified sources of HCB in Mexico and correlated with	November	Increased awareness on risk exposure and sources of HCB in North America	US EPA, Semarnat, Cofepris, EC, HC,	10,000	

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
		D/F emissions for combustion sources.			stakeholders		
	4.14 Communication of the status, goals and success obtained through the trilateral work on D/F/HCB	4.14.1 Website describing the D/F/HCB initiative	Prior to SMOC public meeting in September	Increased awareness on D/F/HCB activities in the North American Region and promote a more active and coordinated participation of the different stakeholders in the region. Work will be coordinated with that of the broader SMOC Communications team.	Stakeholders, public, academia, US EPA, Semarnat, Cofepris, EC, HC	5,000	
		Quality Assurance Summary <i>Electronic Information Product:</i> The website will provide public access to D/F/HCB information on initiatives to be undertaken	Secretariat review: April 2010 Stakeholder/Expert review: May 2010 Peer review: June 2010 Party review–Quality assurance: July 2010 Publication: August 2010				
5. Improved Environmental Performance by	5.1 Improvements of performance of a sector of mutual	5.1.1 Continue information exchanges on	Ongoing	Promote initiatives such as greening design and supply chains, pollution prevention,	USEPA, HC, EC, Semarnat, Salud, chosen industrial		

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2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
Sectors	interest to the SMOC WG	domestic programs and initiate discussions with stakeholders		purchasing policies, and voluntary standards	sector		

Total Cost: C\$543,000

1. SMOC WG Operations: \$103,500
2. Outreach and engagement: \$56,500
3. Foundation Development: \$61,500
4. Reduce Risk of Chemicals: \$321,500
 - PBDEs: \$46,500
 - Mercury: \$97,000
 - Lindane: \$61,500
 - D/F/HCB: \$116,500
5. Improved Environmental Performance by Sectors

Completion of 2009 Outputs

Publishing, translation, editing, layout of document/information products submitted for QAPP review prior to 31 December 2009,
 QA#09.30: Final report on mercury reduction efforts in hospitals in Mexico **C\$10,000**

<p>Performance Measurement Indicators:</p> <ul style="list-style-type: none"> • Active involvement of the SMOC WG members. • Stakeholder participation at annual public session and active engagement in the work of the SMOC WG. • Initial Planning and organization of a North American chemicals conference, to be held in 2011. • Assessment of inventory of PBDE sources in Mexico and recommendations for reducing risk. • Initiation of a chemicals inventory in Mexico. • A comparable North American chemicals inventory. • Indication of whether the various aspects of the SMOC initiative have achieved their desired final result will be known principally through feedback from the Parties and stakeholders, as well as from continuous monitoring and testing. Comparisons of baseline data with current or future values will indicate a measure of success or renewed efforts. • Workshops and projects will be seen as successful if overall program sustainability is achieved—in other words, if the Parties or stakeholders establish the project or necessary measures for capacity building as a sustainable domestic priority. • Success will also be manifested in the improved environmental policies that result from scientifically validated information being utilized by decision makers. • Results will be continually monitored through the EM&A project and feedback from the Parties and stakeholders. 	<p>Key Partners:</p> <p>SMOC Working Group and its task forces (mercury, lindane, dioxins/furans/hexachlorobenzene) and teams (communications, PBDE, chemicals inventory).</p>
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Project 9	Monitoring and Assessing Pollutants across North America	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$320,000 Completion of 2009 Outputs: C\$10,000 Total 2010: C\$330,000	Working Group(s) associated with this work Environmental Monitoring and Assessment Standing Committee (EM&A SC)

Objective of Project

The purpose of this project is to assist the Parties in increasing the comparability, reliability, relevance and availability of data and information on chemicals and chemicals management in the North American environment. Specifically, it seeks to improve the generation and management of information needed to identify and assess trends and concerns related to contaminants and stressors that affect the environment and human health. These activities are a key part of the Sound Management of Chemicals (SMOC) initiative's renewed North American agenda for chemicals management, which supports the NAFTA Parties as they fulfill their commitments under shared international objectives.

While considerable emphasis is on the process of capacity building, all three Parties benefit from the improvements in the availability and validity of comparable trinational data which not only results in a reductions of PBT air contaminants through long range atmospheric transport, but also in reporting, analyzing and comparing data on selected chemicals.

Background

Project History and Foundation

The project originates in the North American Regional Action Plan (NARAP) on Environmental Monitoring and Assessment (EM&A). This NARAP was created through Council Resolution 02-08 to assist the Sound

Management of Chemicals (SMOC) Working Group and its implementation task forces in meeting the environmental monitoring and assessment obligations identified or implied under Council Resolution 95-05, and in subsequent risk mitigation and chemical management strategies developed pursuant to Council Resolutions.

With a focus on risk management and reducing impacts of toxic chemicals, Council Resolution 08-06 directs the SMOC Working Group and its EM&A Standing Committee to focus on the following four main areas of work:

1. Establishing a foundation for chemicals management in North America;
2. Developing and implementing a sustainable regional approach to monitoring, including environmental and human biomonitoring;
3. Reducing the risk from chemicals of concern to North America; and
4. Improving the environmental performance of sectors.

Of these four areas, the second, relating to monitoring, applies in particular, but not exclusively, to the Environmental Monitoring and Assessment project. The other three can be considered to be the focus of the SMOC project.

Co-chaired by representatives of each of the three Parties, a Standing Committee oversees and assists the implementation of the EM&A NARAP and related tasks within the project.

Key Stakeholders, Resource Leveraging, Partnerships

The EM&A Standing Committee considers expert input from stakeholders on current activities. The key stakeholders/organizations who will actively participate in the EM&A work are projected to be those in academia, industry, and environmental NGOs from all three countries. The EM&A Standing Committee will coordinate with the Secretariat to engage other regional and national government agencies with relevant expertise.

Advisory Groups Related to this Project

Under the direction of the SMOC WG, the EM&A Standing Committee is co-chaired by representatives of each of the three countries and oversees and assists the implementation of the EM&A NARAP, Council Resolution 08-06, and related tasks within the project. The structure and make-up of this committee is scheduled to undergo a review, as planned under its terms of reference.

For more information, please go to the following link:

http://www.cec.org/Page.asp?PageID=1225&SiteNodeID=237&BL_ExpandID=&AA_SiteLanguageID=1.

Rationale

This project fosters and encourages cooperation and collective action in planning, conducting and reporting information from baseline surveys, monitoring, modeling and research regarding the status, trends and effects of persistent and toxic substances. It supports the initiative under the sound management of chemicals project to build a compatible foundation of information from which the Parties can make informed decisions.

Fulfillment of Strategic Objectives

The EM&A project is primarily intended to assess the progress of the CEC's SMOC initiative towards meeting its monitoring, research, modeling and assessment commitments; it also seeks to continuously enhance the quality

and availability of information on a trilateral basis. This project supports and contributes to other priorities of the CEC and the Parties.

Information for Decision Making

Certain persistent, bioaccumulative, toxic chemicals (PBTs) released to the environment as a result of human activity are transported long distances through air and water and pose risks to North American communities, the environment, to ecosystems and to human health. Convenient and dependable access to and dissemination of relevant, reliable comparable and validated monitoring information, along with sound interpretive assessments based, in part, on that information, are crucial to the confirmation and quantification of progress made. Regulators will benefit from this scientifically sound information in proposing appropriate control mechanisms where applicable.

Capacity Building

This project develops scientifically sound information by improving capacity through regional and international cooperation in efforts to measure, monitor and assess toxic substances across the continent. A major focus will continue to be assurance and control of the quality of both chemical analyses and the resulting data. Following on the successful efforts for developing the laboratory QA/QC exercise in 2008 and 2009, an advanced, collaborative validation program will ensure that accurate and precise data are generated, especially where Mexico is promoting its capacity as a regional center of excellence for capacity building and technology transfer under the Stockholm Convention.

North American Scope of the Project and Its Relevance to the Three Parties

Mexico identified as a national priority the development and implementation of a domestic monitoring and assessment initiative for chemicals. The availability of such information is important for risk analysis, risk assessment, risk management and the communication of risks to targeted groups and to the general population.

This project will allow North American monitoring of toxic substances through the availability of comparable trilateral data. The benefits to Canada and the USA are not only indicated in reductions of PBT air

contaminants through long range atmospheric transport, but also in reporting, analyzing and comparing data on chemicals of mutual-concern. These activities also support SMOC WG efforts to reduce risks from chemicals of mutual concern, by providing valid, verifiable information for decision making.

CEC Niche and Value Added

The CEC's mandate and prior work to foster cooperation among Canada, Mexico and the United States in the pursuit of the sound management of chemicals and related initiatives makes it a unique platform to accomplish the work proposed here. A cooperative regional approach to monitoring is critical to understanding short- and long-range transport mechanisms of chemicals in air and water. Developing and implementing an integrated North American monitoring network will enable decision-makers to identify areas that are the most affected on a regional scale. In addition, a regional approach to monitoring will help link the effects of environmental policies and chemicals management. Short-term local monitoring initiatives can provide limited focused information, while a long-term approach to regional monitoring provides value added in more robust information about long-term trends in substance levels and allows for the detection of changes.

Linkages with Other CEC Projects

Environmental monitoring and assessment activities are directly linked to the SMOC project, as their primary purpose is to support the SMOC initiative and to help assess progress achieved. Information generated can be directly ascribed to the North American Environmental Atlas through the development and utilization of standardized protocols. State of the environment reporting will benefit from detailed data on levels of toxic substances in the environment.

Activities and Outputs

Key Activities

Key activities will focus on multiple monitoring initiatives that will be developed and undertaken, including lindane in dairy products and PBDEs in humans. Improved laboratory validation protocols and techniques will ensure scientific data is dependable and accurate. Data from these projects will

support decision makers who need information to promote pertinent policy directions, as well as support the development of baseline and hotspot maps for persistent toxic substances.

Target Groups

Target audiences for the SMOC initiative include the national and state health and environmental agencies of all three governments, as well as stakeholders in all three countries, including chemical and agricultural industry, academia, environmental NGOs, indigenous communities, and the general public. Validated information regarding the North American situation will also be used by international organizations such as Grulac, SAICM and UNEP.¹

Partners, Stakeholders

Partners participating in the implementation of the EM&A project include Health Canada, Environment Canada, the US EPA and Mexico's Semarnat, INE and Salud as well as other potentially impacted agencies.² Participating stakeholders will be invited to contribute expertise on a case-by-case basis. The SMOC WG will actively solicit participation from affected stakeholders at the SMOC public meeting sessions.

Leveraging

The EM&A project relies on the in-kind contribution of experts from the Parties as well as guidance from stakeholders such as JPAC, and interested citizens. Members of academia contribute expertise on an as-needed and contracted basis.

Outputs and Associated Timelines

Key outputs from this project include promotion of sustainable environmental monitoring and a human bio-monitoring infrastructure in Mexico. Specific outputs and approximate timelines are:

¹ Grulac—Group of Latin American and Caribbean Countries; SAICM—Strategic Approach to International Chemicals Management; UNEP—United Nations Environment Programme.

² EPA—Environmental Protection Agency; Semarnat—*Secretaría de Medio Ambiente y Recursos Naturales* (Ministry of the Environment and Natural Resources); INE—*Instituto Nacional de Ecología* (National Institute of Ecology); Salud—*Secretaría de Salud* (Ministry of Health).

- Monitoring at two previously identified *Proname*³ index sites in Mexico and initiation of a third site for establishing baseline data for toxic chemicals and implementation of data collection activities (ongoing 2010);
- Assessment workshop describing *Proname* results and developing recommendations for further monitoring (Autumn 2010);
- Training in analytical techniques and data interpretation for both POPs and heavy metals in both environmental and human sample matrices (Spring and Summer 2010);
- Improvements in laboratory analytical capacity directed at environmental and human biomonitoring with an emphasis on promoting sustainability of such efforts in Mexico (Summer 2010);
- Implementation of sustained trinational laboratory validation exercises for POPs and heavy metals (Autumn 2010); and
- Interpretation of QA/QC testing and analysis data from lindane in Mexican dairy products and human blood study (Spring 2010).

Work under the EM&A project will be coordinated within the Sound Management of Chemicals program as described in the SMOC project operational plan.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

First-level effects of the outputs include: improved understanding of QA/QC requirements for information reporting; capacity building to measure, monitor and assess persistent and toxic substances.

Performance Indicators

- Validated information for measuring human exposure to and presence of toxic substances in the environment; and

- Validated information resulting from QA/QC procedures.

Intermediate Outcomes

A domestically sustained network of national monitoring sites in Mexico under the *Proname* initiative which will generate information on environmental and human health trends for decision makers and provide input to the Mexican NIP under the Stockholm Convention.

Information on monitoring initiatives in North America will direct scientists to improved methodologies and data.

Analytical results will be validated by uniform, consistent and sustained laboratory validation exercises in North America, with Mexico benefiting through demonstration of its capacity as a regional center of excellence for capacity building and technology transfer for Latin America and the Caribbean region under the Stockholm Convention.

Analytical capacity improvements in Mexico will enhance confidence in data and promote compliance with its commitments under the Stockholm Convention.

Performance Indicators

- Enhanced comparability of monitoring information collected in the three countries;
- Inclusion of *Proname* data in Mexico's Stockholm Convention national implementation plan (NIP) report; and
- Demonstration of Mexico as a UNEP center of excellence for analytical determinations.

Final Outcomes

The information generated through the EM&A project will provide the three national governments and stakeholders with meaningful insight into the levels of contaminants in North America, thereby assisting policy-developers to focus on priorities for reducing levels of toxic substances in humans and their environment. A sustainable, long-term environmental monitoring and assessment program for North America will ensure validated trends analysis and promote effective and efficient priority action determination by decision makers.

³ Proname, the *Programa Nacional de Monitoreo y Evaluación*, is the CEC-supported effort to establish a baseline of environmental and human biomonitoring data for establishing contaminant levels and trends.

Performance Indicators

- Increased accessibility to and availability of reliable data on toxic substances in North America.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

Promotion of comparable, reliable, relevant and available data and information on toxic substances in the North American environment is an ongoing process. Improving the generation and management of information needed to identify and assess trends and concerns related to contaminants and stressors that affect environmental and human health is also an ongoing process.

Stakeholder meetings with the Parties, organized to ensure that an active dialogue is maintained between the Parties and the stakeholders, combined with regular meetings and monthly conference calls by the EM&A Standing Committee and its working groups, will ensure that promotion of priority actions is maintained.

Target End Date for CEC Involvement

The objective of the EM&A project is to support the confirmation and quantification of progress made with respect to priorities being addressed under the SMOC project. Individual activities under the EM&A project that relate to specific substances or areas of capacity building have target end dates for CEC involvement, as follows:

- Develop and validate trilateral laboratory capacity for analysis of samples and comparison of results across North America. The requirements for this activity are determined on an annual basis.

In 2010 the group will:

- Promote implementation of sampling, analysis and QA/QC protocols for chemicals and environmental media of concern;

- Initiate a sustainable laboratory verification routine through validation of data from analyses of chemical contaminants in various environmental media. An estimated 10 laboratories will be asked to participate;
- Interpret 2009 baseline data set of lindane levels in dairy products and human blood in Mexico to assist decision makers assess risk reduction priorities; and
- Support the establishment of *Proname*, Mexico's comprehensive environmental/human monitoring and assessment initiative, as a nationally funded priority.

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein.

In the event that the CEC's 2010–2015 Strategic Plan does not include any further support for the Sound Management of Chemicals initiative, the key activities such as foundation development, regional monitoring, toxics risk reduction and sector improvements could be transferred to existing national programs of the Parties.

Mexico has indicated that it would not be able to continue all SMOC tasks currently indicated for implementation and current tasks would have to be prioritized, with several capacity building efforts likely deferred. For example, the *Proname* initiative and Mexico's role in regional monitoring would depend on implementation through domestic priorities. Funding from international funding institutions (e.g., GEF) has been promoted through Semarnat. Monitoring improvements and greater capacity to model air transport of toxics could possibly be shifted to the agenda of other bilateral and international programs, such as SAICM and other UNEP Conventions, as appropriate.

Monitoring and assessment would need to be developed under domestic priorities. Mexico's membership in established laboratory validation programs with Canada and the United States would be suspended.

Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project descriptions.

It is to be noted that a decision not to support the monitoring and assessment activities under the 2010–2015 Strategic Plan would require the amendment of Council Resolution 08-06, as it directs the development and implementation of a sustainable regional approach to environmental and human biomonitoring and assessment.

Communications

The SMOC Working Group has a well-established relationship with its stakeholders, which directly benefits the EM&A project. Stakeholder engagement in current and future activities will occur during project implementation and may involve development of outreach materials, organizing public sessions at SMOC meetings, holding joint meetings with other CEC groups and participating in conferences and workshops organized by others. Public consultation events of the Standing Committee and the SMOC Working Group, as well as reports submitted to the Council and the

CEC's Joint Public Advisory Committee, will provide required levels of accountability.

Information Management

As the information generated by this project may be of a technical nature and require assessment through statistical analysis and trends development, electronic storage and retrieval mechanisms will be required. Much of the data is intended to be amenable to mapping and, thus, comparability and compatibility are of utmost importance. The data will be presented in such a way that mapping and geographic information system (GIS) referencing may be facilitated.

Implementation Plan

PROJECT 9 – Monitoring and Assessing Pollutants across North America

Strategic Objectives:

- Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern.
- Strengthen the Parties' abilities to assess and manage chemicals of concern.

2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. EM&A Standing Committee Coordination	1.1 Addressing North American needs for environmental monitoring and assessment (EM&A)	1.1.1 Conference calls	Monthly	Continued implementation of ongoing activities and coordinated path forward	US EPA, Semarnat, <i>Instituto Nacional de Ecología</i> (INE), Cenica, HC, EC	\$5,000	
		1.1.2 Face-to-face meeting	October	Coordinated trilateral program of cooperation on EM&A in North America Increased awareness and knowledge, greater coherence for North American EM&A activities Coordinated approach with SMOC WG priorities.		\$25,000	

PROJECT 9 – Monitoring and Assessing Pollutants across North America							
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
2. Foundation Development	2.1 Trilateral lab validation project	2.1.1. Inter-lab validation exercise. A core group of 10–15 laboratories in Mexico participate in a lab validation project	September	<p>Mexican laboratories ready for participation in international lab validation protocols</p> <p>Improved analytical capacity in Mexico</p> <p>Chemicals analyzed with precision and accuracy; reported and compared in a consistent and comparable manner</p>	Semarnat, Cofepris US EPA, EC, HC.	\$30,000	
3. Reduce Risks from Chemicals	3.1 Lindane monitoring project	3.1.1 An assessment report integrating 2009 milk and blood data from Mexico	March	Enhanced knowledge of exposure to lindane in Mexico	INE, Semarnat, Cofepris, UNEP, WHO	\$30,000	
		<p>Quality Assurance Summary</p> <p><i>Report:</i> The report will summarize the findings of the 2009 study on lindane in bovine milk and human blood, to determine exposure to lindane, with an emphasis on children.</p>	<p>Secretariat review: April 2010</p> <p>Stakeholder/Expert review: May 2010</p> <p>Peer review: June 2010</p> <p>Party review–Quality assurance: July 2010</p> <p>Publication: September 2010</p>				

PROJECT 9 – Monitoring and Assessing Pollutants across North America							
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	3.2 PBDE monitoring project	3.2.1 A sampling exercise of PBDEs in human blood in large Mexican Metropolitan areas	April-October	Improved knowledge of PBDE impacts in Mexico	Semarnat, INE, US EPA, EC, HC	\$30,000	
	3.3 DDT and PCB report on post-NARAPs	3.3.1 Report on DDT and PCB, as requested in Council Resolutions 07-06 and 07-07	March	Trilateral status of DDT and PCB, updated based on existing data from the three Parties	US EPA, Semarnat, Salud, HC, EC	\$10,000	
		Quality Assurance Summary <i>Report:</i> The report will summarize the trilateral status of DDT and PCB, subsequent to the closure of the NARAPs	Secretariat review: April 2010 Stakeholder/Expert review: May 2010 Peer review: June 2010 Party review–Quality assurance: July 2010 Publication: September 2010				
4. Regional monitoring	4.1 Mexico's <i>Proname</i> : development and support for <i>Proname</i> sites	4.1.1 One new background/baseline <i>Proname</i> site identified and established 4.1.2 Maintenance of two existing <i>Proname</i> sites	November Jan-Dec	Continued development and implementation of the Mexican <i>Proname</i> initiative, leading to a nationally sustained program	US EPA, Semarnat, INE, Cenica, EC, HC	\$40,000 \$30,000	

PROJECT 9 – Monitoring and Assessing Pollutants across North America							
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	4.2 <i>Proname</i> Development: Assessment of <i>Proname</i> results	4.2.1 A workshop on <i>Proname</i> and related CEC EM&A activities	October	Improved national baseline and monitoring information in Mexico.	US EPA, Semarnat, INE, Cenica, EC, HC	\$40,000	
	4.3 Human biomonitoring capacity building	4.3.1 Training course on sample treatment and analysis for POPs in humans	May	Improved analytical capacity to support biomonitoring of POPs in women of childbearing age in Mexico	Semarnat, INE, US EPA, EC, HC	\$20,000	
		4.3.2 Training course on sample treatment and analysis for metals in humans	May	Improved analytical capacity to support biomonitoring of metals in women of childbearing age and children in Mexico		\$20,000	

PROJECT 9 – Monitoring and Assessing Pollutants across North America							
Strategic Objectives: <ul style="list-style-type: none">• Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern.• Strengthen the Parties’ abilities to assess and manage chemicals of concern.							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	4.4 Environmental monitoring capacity building	4.4.1 Training course on sample treatment and analysis for POPs in environmental matrices	July	Improved analytical capacity to support environmental monitoring of POPs	Semarnat, INE, US EPA, EC, HC	\$20,000	
		4.4.2 Training course on sample treatment and analysis for metals in environmental matrices	July	Improved analytical capacity to support environmental monitoring of metals		\$20,000	
Total Cost: C\$320,000 1. EM&A Operations: \$30,000 2.Foundation: \$30,000 3. Reducing Risk: \$70,000 4. Monitoring: \$190,000							
Completion of 2009 Outputs Publishing, translation, editing, layout of document/information products submitted for QAPP review prior to 31 December 2009: C\$10,000 QA#09.32: Guidance document for biomonitoring initiatives (\$5,000) QA#09.33: Report on mercury levels in fish in Lake Zapotlán (\$5,000)							

PROJECT 9 – Monitoring and Assessing Pollutants across North America							
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Strengthen the Parties' abilities to assess and manage chemicals of concern. 							
2010 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Performance Measurement Indicators: <ul style="list-style-type: none"> Confidence and validity in data resulting from QA/QC procedures (capacity building). Inclusion of the <i>Proname</i> initiative in Mexico's Stockholm Convention National Implementation Plan (NIP) report. Increased accessibility to and availability of reliable data on toxic substances in North America. <p>Results will be continually monitored through the EM&A Standing committee</p>						Key Partners: <p>SMOC Working Group and its Task Forces</p> <p>EM&A Standing Committee and its subcommittee members</p>	

Project 10	Enhancing North America Air Quality Management	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$400,000	Working Group(s) associated with this work North American Air Working Group

Objective of Project

The objective of this project is to provide a more complete North American picture of air quality and air emissions to support decision-making on air quality management.

The 2010 project activities bring to completion some key tasks from the CEC 2009 Operational Plan associated with the update of the Mexican National Emissions Inventory, the publication of the North American Power Plants Emissions Report, and continue activities aimed at integrating North American ambient air monitoring network data and information under the AIRNow-International system, and provide the opportunity to assess the work to date and any future activity that may follow from the CEC's new 2010–2015 Strategic Plan.

Background

Project History and Foundation

In 2001, under Resolution 01-05, the CEC Council agreed to work towards promoting comparability of air emissions inventory information in North America. Since then, the CEC has pursued two goals in this regard:

1) Facilitating the development of comparable air emissions data for use in transborder air quality planning, and

2) Enhancing the public availability of air emissions information in North America.

The CEC carried out extensive work in 2003–2004 promoting the development of North American air emissions inventories, supporting Mexico's first national air emissions inventory in a manner that directly aids transborder air quality planning, as well as meeting Mexico's planning needs. The first Mexican National Emissions Inventory (MNEI) was completed in October 2006, and included emissions of criteria air pollutants for the year 1999.

In 2007, the Parties charged the North American Air Working Group (NAAWG) to work with the Secretariat to review the current air quality work and to formulate a comprehensive vision for enhancing North American Air Quality Management for 2010–2015. The Council directed the NAAWG to develop an implementation strategy for cooperation on air quality (Air Strategy) as outlined in the 2010–2015 North American Vision, which had five fundamental objectives:

- 1) Developing capacity for self-sustaining inventories and ambient monitoring;
- 2) Achieving comparability and synchronicity of inventories and monitoring capabilities;
- 3) Developing meaningful and comparable data and analyses;
- 4) Mapping air quality trends, impacts and air quality strategies; and

5) Facilitating coordination and effectiveness of air quality policies, strategies and voluntary programs.

Consequently, in 2008, the CEC Secretariat completed a comprehensive assessment of North American air emissions inventories and air quality monitoring networks. This assessment provided a basis for the development of the Air Strategy document. The North American Air Quality Management Strategy for 2010–2015 was submitted to Council in 2009.

In addition, with CEC support, portions of the on-road mobile, point, and biogenic source components of the Mexican National Emissions Inventory have been updated for the data year 2005, resulting in significant progress toward the comparability and synchronicity of North American emissions inventories.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

Partners involved in related air quality work include US EPA, Semarnat, Environment Canada, Mexico's INE, CEC, Western Governors' Association, the Great Lakes Commission, and individual states and provinces.

The work being done through the CEC program for North America complements ongoing efforts of these various partners in the area of air quality management, and addresses the need for comparability and compatibility of information, policies and programs across the continent.

Advisory Groups Related to This Project

The North American Air Working Group (NAAWG) is the main advisory group to the Council on this project. Frequent communications between the CEC and the NAAWG, and partner organizations ensures complementarity of efforts and quality project outcomes.

Rationale

Differences in capacity to collect, analyze, validate, report and share air emissions information can hinder the development of sound North American air quality assessment and management activities. Consequently, there is a need for applying common methods, techniques and capacities for estimating air emissions, collecting and

analyzing ambient emissions data, and for managing the collected information in a consistent manner that improves its accessibility for the Parties and the public.

Fulfillment of Strategic Objectives

The activities involved in this project are consistent with the specific priorities linked to fulfilling the 2005–2010 Strategic Plan, and with the Council's 2007 directive on air quality.

Information for Decision-making

Air emissions inventory information is fundamental to identifying and estimating the contribution of key source sectors to local, regional and global air quality, thus helping decision-makers design and prioritize their air quality management options. Similarly, ambient air monitoring provides air quality conditions data to inform decision-makers of reduction steps necessary in a specific region. Coupled with air quality modeling, emissions inventories and ambient air quality monitoring can help identify important source regions that affect air quality in downwind and cross border locations, making this project relevant to decision-makers in all three countries. They also provide the public with basic information on local air quality, the environmental performance of emission sources located in their communities, and potential health impacts from resulting pollutants.

Capacity Building

The capacity building aspect of this project focuses on working with Mexico to achieve comparable and compatible emissions inventories and reporting efforts; a standard format for collecting, validating, and sharing data from ambient air monitoring networks; and relevant scientific information essential for the creation of comprehensive and coherent North American air quality management initiatives.

North American Scope of the Project and Its Relevance to the Three Parties

The CEC project is consistent with the Strategic Plan developed by the Parties and with the Council's 2007 directive on air quality. Furthermore, the project activities complement the Parties' other trilateral and international commitments to share air emissions information and to collaboratively reduce air pollution, including the US-Canada Air Quality Agreement,

Mexico-US La Paz Agreement (currently being implemented via the Border 2012 Program), Under the Border 2012 Program, the Western Governors Association is involved in supporting the development and improvement of air pollutant emissions inventories along the US-Mexico border, and complements the work being completed under the CEC on the Mexican National Emissions Inventory (MNEI).

The US EPA, Environment Canada, Semarnat and Mexico's Federal Electric Power Commission are involved in several projects looking to improve the characterization of emissions from Mexico's electric power sector. The resulting information will contribute to improvements in Mexico's national inventory and will provide the Parties with quality information for use in addressing air quality issues associated with long-range transport of air pollutants.

CEC Niche and Value Added

The CEC provides the framework that permits the Parties to exchange information and work cooperatively in addressing issues related to emissions inventories and ambient monitoring, which will inform air management strategies. At this time, there is no similar project that addresses the air quality management needs of all three countries. In collaboration with its partners at the national and state-province levels, and by leveraging work taking place in border areas of certain regions, the CEC is well-placed to bring together the expertise and methodologies for developing consistent techniques and capacities to improve air quality management across North America.

Linkages with Other CEC Projects

Updating the *North American Power Plant Emissions* database and report will provide supplemental information for Mexico's mercury emissions inventory being developed with the CEC's Sound Management of Chemicals (SMOC) initiative, and the North American Atlas Project.

The project also has linkages with work being done under the CEC's North American PRTR project, particularly in the area of air releases from sources not required to report under the national PRTR programs.

Activities and Outputs

Key Activities

- Study design for PM_{2.5} emission factor development for on-road mobile sources in Mexico. This activity will evaluate existing Canadian and US PM_{2.5} emission factors for possible use in Mexico, identified gaps in the information, and provide recommendations for use in developing emission factors representative of the Mexican fleet.
- Update the CEC's Power Plant Emissions database and report for the 2005 data year. This will allow tracking of changes in emissions, the assessment of comparability of emission estimates for pollutants of special interest (criteria, GHG, and mercury), and the provision of base level information for binational and trinational air quality management initiatives of the Parties. It will also supplement the mercury emissions inventory for Mexico under the SMOC initiative.
- Build upon the outcomes of the December 2009 meeting to discuss the use of AIRNow-International (AIRNow-I) for reporting air quality data in Mexico, and possible paths toward trilateral integration of monitoring network data and information, provide capacity building in Mexico through: 1) development of a system planning document outlining capabilities and needs; 2) supporting the participation of key Sinaica (*Sistema Nacional de Información de la Calidad del Aire*) managers at the 2010 National Air Quality Conference in Raleigh, NC, where AIRNow-I will be discussed; 3) conducting two training sessions to address data validation, quality assurance, quality control, and common formats, with hands-on activity or demonstrations and to convey the detailed interworking and operating requirements of the AIRNow-I software. The second training session will include an introduction to air quality forecasting; 4) conducting a Webinar demonstrating AIRNow-I system capabilities; 5) translation of AIRNow-I manuals and relevant documentation from English into Spanish.
- Update components of the 2008 Mexican National Emissions Inventory, using comparable tools and methodologies to those used in the United States and Canada, and build capacity for Mexican

states to develop their portions of the national inventory. The updated inventory will be completed in 2010 and includes the following components:

- Completion of point, area, mobile and biogenic sources;
- Capacity building workshops on emissions inventory development for selected Mexican states; and
- Assessment and adaptation of automated tools to assist in the emissions inventory development process.

Target Groups

The main target groups include national, regional, and state/provincial agencies working on related efforts.

Partners, Stakeholders

NAAWG and the Secretariat will collaborate, through regular meetings and conference calls, to review and monitor the progress of the projects, discuss and assess current and future project needs and priorities, offer guidance and strategies for improvement, and review relevant documents and deliverables.

Leveraging

In conducting the main activities of this project, the CEC has secured the cost-effective collaborations with key partners that will contribute information and expertise necessary to enhance and successfully complete the project.

Cooperative work with Environment Canada and US EPA mobile sources research laboratories to establish the study design for PM_{2.5} emission factor development for on-road mobile sources in Mexico. This collaboration will reduce the cost of the study design, provide consistent methodologies across the region, and allow the use of data already developed by recent efforts in Canada and the United States.

The emissions inventory development work, sponsored by the Great Lakes Commission and conducted by the Great Lakes states and the Province of Ontario, will provide vital quality information for updating the North American Power Plant Emissions database and report. Approximately one-third of the sources included in the 2002 report are located in the Great Lakes

region. Other sources of information include the EPA's State and Local Climate and Energy Program, and Environment Canada's National Pollutant Release Inventory Program.

Outputs and Associated Timelines

- Study design for PM_{2.5} emission factor development for on-road mobile sources in Mexico (July 2010);
- Updated CEC Power Plant Emissions database and report for the 2005 data year (August 2010);
- System Planning document outlining Mexico's capabilities and needs for implementing AIRNow-I (January-February 2010);
- AIRNow side-meeting at US EPA's National Air Quality Conference (March 2010);
- Training sessions on common formats, QA/QC and data validation, and operating requirements (June 2010); second training including introduction to air quality forecasting (September 2010);
- Webinar on AIRNow-I system capabilities (August 2010);
- Translation of AIRNow-I documentation and manuals into Spanish (data and information management systems and the web manual) (September 2010);
- Updated 2008 Mexican National Emissions Inventory (December 2010);
- Capacity building workshops on inventory development for Mexican states (spring-summer 2010); and
- Assessment and adaptation of automated tools to assist in the emissions inventory development process.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Updated key information on emissions from the electricity generating sector for use in advancing air quality initiatives, climate

change mitigation strategies, and determination of environmental performance; and

- Consistent information to facilitate sound air quality management decisions in all three countries.

Performance Indicators

- Publication of updated North American Power Plants Emissions database and report;
- Planning document, webinar, trainings, and guidance documents/manuals related to Mexico's involvement in AIRNow-International;
- Completion of major components of the updated Mexican National Emissions Inventory, as specified under "Activities and Outputs" above; and
- Capacity building workshops on emissions inventory development for Mexican states.

Intermediate Outcomes

- Infrastructure that allows the three Parties to exchange information and work cooperatively in addressing issues related to emissions inventories and ambient monitoring, which will inform air management strategies; and
- Increased capacity to enhance the comparability and synchronicity of air emissions inventory and ambient air quality information collection and analyses by following agreed upon standards, protocols, and procedures across the three countries.

Final Outcomes

- Development of, and access to, comparable air quality management information; and
- A more complete North American picture of air quality and air emissions that will support decision-making on air quality management.

Timetable, Project Completion and Sustainability

The key activities under this project will be completed in 2010.

Culminating Steps in Achievement of Program Objectives

The CEC completed a comprehensive assessment of North American air emissions inventories and air quality monitoring networks, and submitted to Council the North American Air Quality Management Strategy 2010–2015. In addition, with CEC support, portions of the on-road mobile, point, and biogenic source components of the Mexican National Emissions Inventory have been updated for the data year 2005, resulting in significant progress towards the comparability and synchronicity of North American emissions inventories. Furthermore, the CEC, in conjunction with EPA, Semarnat, Environment Canada, and INE, provided a forum to ambient monitoring network managers in Mexico as a means of introducing them to the AIRNow-International system, in which participating networks agreed on the need for and benefits of Mexico's network data and information being included under the AIRNow program.

Target End Date for CEC Involvement

These tasks are all intended for completion in 2010. Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Sustainability Beyond 2010

To the extent that the tasks described in this project description are conclusive, future work in support or continuation of these or related activities will be assessed in relation to the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

It is to be noted that a decision not to support or to modify the air quality activities under the 2010–2015 Strategic Plan would require the amendment or cancellation of Council Resolutions 96-05 and 01-05, which commit the three countries to work towards promoting comparability of air emissions inventory information in North America.

Communications

The North American Power Plant Emissions Report will be published by the CEC in print and electronic form. An accompanying searchable database will be posted on the CEC website.

Information Management

This project will require the coordination and exchange of information on existing air quality and emissions reporting systems managed by the three Parties.

The project also involves the development of electronic databases that will allow the efficient storage of, and access to, air pollutant emissions information. The databases will also support web mapping applications, and be used in other CEC initiatives.

Reports developed through this project will be available in electronic format on the CEC's website.

Implementation Plan

PROJECT 10 – Enhancing North America Air Quality Management						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Cooperative work with Environment Canada and US EPA mobile sources research laboratories to establish study design for PM _{2.5} emission factor development in Mexico	Study design for development of PM _{2.5} emission factors	July 2010	Comparable base-level information for on-road mobile sources emissions inventories for use in national and regional North American air quality initiatives	US EPA, Semarnat, Environment Canada, INE, academic and research institutions, North American local, state and regional environmental protection agencies, indigenous/tribal/First Nations governments or agencies	\$35,000	
2. Information collection for Power Plant Emissions database and report update	<ul style="list-style-type: none"> Updated Power Plant Emissions database and report with 2005 data Complementary information for US-Mexico, and Canada-Mexico work on the electricity sector Supplementary information for Mexico's 	August 2010	Updated key information on emissions from the electricity-generating sector for use in advancing air quality initiatives, climate change mitigation strategies, and determination of environmental performance	US EPA, Semarnat, Environment Canada, National departments of energy, Regional planning organizations, states and provinces	\$60,000	

PROJECT 10 – Enhancing North America Air Quality Management						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	mercury inventory <ul style="list-style-type: none"> Improved characterization of emissions from electric power sector 					
	Quality Assurance Summary <i>Report:</i> North American Power Plants Emissions Report	Stakeholder/Expert review: Selected stakeholders/ experts for three-week review (April 2010) Party review–Drafting: Three-week review (May 2010) Party review–Quality assurance: June-July 2010 Publication: August 2010				
	Quality Assurance Summary <i>Project Database:</i> Database of Atmospheric Emissions from North American Power Plants	First half of 2010–Data compilation from publicly available information from the Parties				
3. Capacity building activities for the implementation of AIRNow-I in	Planning document outlining capabilities and needs	January-February 2010 March 2010	Comparable formats and data validation procedures for ambient air quality information for use in	Semarnat, US EPA, Environment Canada, INE, academic and research institutions,	\$75,000	

PROJECT 10 – Enhancing North America Air Quality Management						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Mexico	<p>Meeting at US EPA National Air Quality Conference</p> <p>Webinar demonstrating AIRNow-I system capabilities</p> <p>Training sessions for network managers on data validation, common formats, and QA/QC, with hands-on activities plus introduction to air quality forecasting</p> <p>Translation of AIRNow-I manuals and guidance documents</p>	<p>August 2010</p> <p>June and September 2010</p> <p>September 2010</p>	national and regional North American air quality initiatives	North American local, state and regional environmental protection agencies		

PROJECT 10 – Enhancing North America Air Quality Management						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
4. Complete specified portions of the update of the 2008 Mexican National Emissions Inventory and provide capacity building workshops for Mexican states on emissions inventory development	Updated Mexican National Emissions Inventory for point, area, mobile and biogenic sources Increased capacity to develop state-level inventories Automated tools to assist in the emissions inventory development process	December 2010	Comparable emissions inventories for a common base year for use in national and regional North American air quality initiatives	Semarnat, USEPA, Environment Canada, INE, academic and research institutions, North American local, state and regional environmental protection agencies	\$225,000	
5. North American Air Working Group (NAAWG) and Secretariat collaborate, through regular meetings and conference calls, in reviewing, monitoring and facilitating the progress of the projects, assessing current and future project needs and	Efficient and effective implementation of air quality-related projects		Efficient and effective achievement of CEC/Parties' air quality objectives	Environment Canada, Semarnat, US EPA, states and provinces	\$5,000	

PROJECT 10 – Enhancing North America Air Quality Management						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
priorities, suggestions for improvement, and reviewing relevant project documents and deliverables						
Total Cost: \$400,000						
Performance Measurement Indicators: <ul style="list-style-type: none"> Completion of components for the Mexican NEI. Updated North American Power Plants Emissions database and report. Increased reliability and accessibility of emissions and ambient air quality data. 						Key Partners: US EPA, Semarnat, Environment Canada, INE, CEC, States and provinces, Great Lakes Commission, Western Governors Association

Project 11	Tracking Pollutant Releases and Transfers in North America	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$384,000	Working Group(s) associated with this work Ad hoc Advisory Group, including PRTR officials of the three countries

Objective of Project

The main objectives of the project are:

- to compile and disseminate information on the amounts, sources, and management of toxic contaminants from industrial activities in North America; and
- to promote the use of this information for the development of sound initiatives that will result in the reduction of industrial releases and transfers of pollutants of concern across the region.

Background

Project History and Foundation

Begun in 1996, the CEC's North American Pollutant Release and Transfer Register (NAPRTR) project has been a key component of the CEC's ongoing work on pollutants and environmental health. The NAPRTR project collects and analyzes information from the PRTR programs of Canada, Mexico and the United States on the amounts, sources, and handling of toxic chemicals released or transferred from industrial facilities. Where pertinent, additional sources of data and information might also be used to supplement PRTR data and enhance understanding.

This information, integrated at the North American level, is made available to a spectrum of users, including local governments, industry,

nongovernmental organizations, and the general public, through the CEC's flagship publication, *Taking Stock*, and the *Taking Stock Online* web pages and searchable database, at <http://www.cec.org/takingstock>. Together with the PRTR officials of the three countries, the NAPRTR project team works on the implementation of the *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

A key element in the provision of information to stakeholders from the three countries is the annual public meeting of the NAPRTR project. This event brings together stakeholders such as: national PRTR officials and state, provincial, and municipal representatives working on PRTR or similar inventory initiatives; representatives of reporting industries; international PRTR organizations, nongovernmental organizations working on pollution prevention and health; and any other stakeholder wishing to learn about and have input in the work of the NAPRTR project.

The nature of this project is one that uses existing resources and adds value to the individual national PRTR programs.

Advisory Groups Related to this Project

Central to the consultative process of the CEC's NAPRTR project is an ad hoc advisory group consisting of a variety of stakeholders, including the PRTR officials of the three countries. Many of these stakeholders are regular participants of the annual public consultative meeting, providing input for the NAPRTR project and the *Taking Stock* report and website.

Rationale

Fulfillment of Strategic Objectives

Activities under the NAPRTR project support specific objectives and priorities stated in the CEC's 2005–2010 Strategic Plan:

Information for Decision-making

The NAPRTR project provides information relating to the sources, amounts and handling of toxic substances released or transferred by industrial facilities in Canada, the United States, and Mexico. The *Taking Stock* report brings together this information in a format that allows stakeholders to understand the context and limitations of PRTR data, as well as areas for further improvement. The report also features special analyses of releases and transfers from specific sectors, or of certain pollutants, which can provide additional insights for decision-making.

This project aims to provide information to support sustainable environmental policies and practices throughout North America that promote reductions in pollutant releases from industrial activities. It seeks to encourage relevant decision-making activities by governments, industry, and nongovernmental organizations, as well as to equip the general public with information concerning environmental issues. Examples of how the *Taking Stock* report and database have been useful to decision makers include:

- analyses of releases and transfers from specific sectors, providing information to the Parties about inconsistencies in data from the three countries;
- analyses of data submitted and identification of “outliers,” or suspect data, and communication of this information to the Parties, leading to improved data quality;
- use by NGOs such as Environmental Defence (Canada) for their reports on releases and transfers from facilities in the Great Lakes region;
- increased awareness and use of national PRTR data, due to outreach efforts (informal survey) about PRTR data in indigenous communities in Canada-US and US-Mexico border regions; and

- anecdotal evidence of use, by PRTR reporting facilities, of the comparisons and rankings in the *Taking Stock* report to improve their environmental performance.

Capacity Building

Through this project, the three Parties work together on the identification of needs and corrective actions for consistent data collection, comparability, and quality across the PRTR systems in North America. The trilateral data analyses conducted under the NAPRTR project also provide the Parties with baseline information necessary to identify suspect data; validate the information collected; and improve the overall quality of the data. Capacity building is especially relevant for Mexico's *Registro de Emisiones y Transferencia de Contaminantes* (RETC) program, which became mandatory only in 2004. Current challenges include significant gaps in reporting by industries; these challenges reflect a steep learning curve for Mexican administrators and the facilities required to report.

The following capacity-building initiatives will promote increased comparability and consistency in the areas of data reporting, collection and quality assurance:

- Support for Mexico's efforts to improve data quality and reporting through assistance with data validation efforts, and the identification and communication of data “outliers,” from data compilation and analysis in the *Taking Stock* report.
- Exchanging information among PRTR officials on current data quality and industrial sector characterization efforts undertaken by the Canadian and US PRTR programs. This will result in improvements to the individual PRTR programs and promote increased comparability of PRTR data across North America. The NAPRTR project's compilation, comparison and analysis of releases and transfers from certain sectors (e.g., steel and iron, cement, electricity) complement and provide additional information to national efforts in this regard.

Trade and Environment

This project provides base-level information to assess the environmental performance of certain industrial sectors and the implementation of pollution prevention efforts resulting in cost reductions and increased competitiveness.

North American Scope of the Project and Its Relevance to the Three Parties

By virtue of its pan-North American scope, the NAPRTR project allows for comparisons of industrial pollution, particularly within industrial sectors common to the three countries. Through analyses of reported PRTR data from Canada, Mexico and the United States, governments, industry representatives, and citizens can better understand the sources and types of industrial pollution with potential impacts on the health and environment of North Americans. The analyses provided by *Taking Stock* also describe changes in the pattern of releases and transfers of toxic chemicals over time, by media, sector and country. This understanding is the first step in the decision-making process.

CEC Niche and Value Added

The importance of this project stems from the fact that it adds value and relevance to the goals of the national PRTR efforts, and provides information and analysis beyond that available through individual PRTR programs. The North American analysis of pollutant releases and transfers over time, through the *Taking Stock* report, is a unique contribution to public understanding of pollution sources and a leading example of the fulfillment of the public's right-to-know concerning pollution management. Through published analyses and online mapping of reporting facilities across North America, it offers enhanced access to important information for all stakeholders, for use in addressing environmental issues of concern at local, regional, national, and trilateral levels.

Tracking pollutant releases and transfers at the continental scale recognizes that pollution reduction efforts require collaboration across borders. This project also fosters communication and cooperation among the three Parties in working toward institutionalizing and improving their own PRTR programs. The creation of Mexico's RETC and its incorporation into the NAPRTR is one of the success stories associated with this project.

Through the publication of *Taking Stock* and other outreach efforts, the CEC helps to increase visibility of individual programs. The annual public meeting for the CEC's NAPRTR project also provides a forum for stakeholders across North America to obtain information and provide feedback on the uses of PRTR data, data quality, data presentation, and outreach. Moreover, Canadian, Mexican and US officials also participate in this annual meeting, providing updates and information about their individual programs, while at the same time benefitting from stakeholder feedback within a regional context.

Linkages with Other CEC Projects

The NAPRTR project has linkages with the CEC's Sound Management of Chemicals (SMOC) initiative. Certain chemicals, or groups of chemicals (such as mercury and PBTs), are of concern and targeted for prioritization under both initiatives.

Similarly, there are inherent synergies between the NAPRTR project and the Enhancing Air Quality in North America efforts. For example, PRTR data from coal- and oil-fired power plants can be combined with other sources of information for use in specific air quality studies of this sector.

This project has linkages with the North American Atlas project, linkages which are being constantly developed through increased mapping of PRTR data used for a variety of analyses in the report and on the website.

Activities and Outputs

Key Activities

The specific activities or tasks that will be undertaken within the NAPRTR project in 2010 include:

- NAPRTR Officials Ad hoc Advisory Group: Organize regular conference calls with PRTR officials to review the progress of the project (including relevant documents and deliverables), discuss and assess the project's needs, offer guidance and strategies for improvement, and assist in setting priorities.
- Capacity Building: Work with officials on developing and implementing ways to increase comparability and consistency in the

areas of data reporting, collection, and quality assurance. Activities will include industry-focused workshops on data consistency and reporting, and data validation activities particularly with respect to the Mexican RETC.

- Data Collection and Analysis: Collect information from the PRTRs and, where pertinent, other data repositories of the three Parties; address data inconsistencies and incorporate results of relevance and use to the Parties and stakeholders in the *Taking Stock* report. One goal is to provide the data in a format suitable for use in Web and mapping applications (e.g., in accordance with North American Atlas Framework guidelines).
- Information Management Infrastructure: Explore innovative ways to improve the process of gathering, storing, and accessing the NAPRTR data in order to increase their usefulness in existing or future projects or applications (e.g., *Taking Stock Online*, Atlas Mapping, Trade and Environment projects, and ad hoc reporting for CEC programs).
- Outreach: Organize the annual public meeting of the NAPRTR project, which provides feedback on *Taking Stock* and the NAPRTR project, and offers input into areas of focus and analysis for future reports; participate in national and international PRTR efforts; and increase outreach via enhanced access to the *Taking Stock Online* website and tools, and workshops with stakeholders who use the information.

Target Groups

The NAPRTR Project's target groups include governments, nongovernmental organizations working on pollution issues, industry, academics involved in related studies, and the average citizen looking for information about local, national or continent-wide pollution sources.

Partners, Stakeholders

The US EPA (Toxics Release Inventory), Environment Canada (National Pollutant Release Inventory), and Mexico's Semarnat (RETC program) provide the information and data for this project. Academics, industry

experts and NGOs also participate by reviewing the *Taking Stock* special feature chapter.

Leveraging

Data from the three Parties are used for the compilation and production of reports and associated products of the NAPRTR project.

Outputs and Associated Timelines

1. The *Taking Stock* 2006 data overview and *Taking Stock Online* website and searchable integrated PRTR database: March 2010; and
2. The *Taking Stock* report with feature analysis on releases to water: (May 2010).

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

The direct outcome of the NAPRTR project is the creation of infrastructure that allows the three Parties to exchange information, reach a common vision, and work cooperatively in addressing issues related to the comparability, consistency and improvement of their respective PRTR programs.

Performance Indicators

- Reduced time lapse between data collection and final report distribution.

Intermediate Outcomes:

This infrastructure permits the Parties to build capacity and seek policy changes that ultimately make possible the integration, relevance, and usefulness of the PRTR databases across North America.

Performance Indicators

- Consistency in reporting requirements across PRTR programs, including reporting of priority pollutants, as recommended in the *Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America*.

Final Outcomes

The final outcome of this project is the creation of an integrated North American PRTR database that supports the compilation and dissemination of quality, unbiased and comparable information. The ultimate goal of this project is that the use of this information will result in positive actions, such as informed policy decisions, industry evaluation of efficiency and environmental performance, cost-effective pollution prevention practices, and citizen awareness about hazardous substances released to the environment.

Performance Indicators

- Feedback from stakeholders (NGOs, all levels of government, citizens, academia, industry) about their use of PRTR information; and
- Usage statistics of *Taking Stock Online* and requests for publications.

Timetable, Project Completion and Sustainability

This project describes activity for 2010. Future work in support or continuation of these or related activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Sustainability Beyond 2010

With the establishment of Mexico's mandatory RETC and recent public access to RETC data, collaboration between the CEC and the Parties has focused on data quality and promoting efficiencies in the state/provincial-federal exchange of information. Each Party now has a mandatory PRTR regime in place. Should the CEC no longer continue to integrate such data, any organization could collect, integrate and disseminate trinational PRTR data. The extent to which this would add analytical value and increase community and stakeholder access would depend upon the institutional focus and priorities of such an organization. Similarly the work of continuing to improve the comparability and quality of PRTR data from each county, pursuant to the CEC's *Action Plan to Enhance the Comparability of PRTRs*

in North America, could be adopted as a cooperative task by one or all of the Parties.

The CEC Secretariat has established a North American PRTR data integration methodology and infrastructure through its *Taking Stock Online* web-based tool. This allows stakeholders to explore PRTR data, creating their own data tables and reports through search and mapping tools and provides context to the information. The *Taking Stock* analysis and comparison of PRTR data at the North American scale also contributes valuable online content. Hence adoption of the *Taking Stock Online* function would require replication and maintenance of an integrated database as well as the North American data analyses.

It is to be noted that a decision not to support PRTR activities under the CEC post-2010 would require the cancellation of Council Resolution 97-04 which represents an agreement to produce the annual CEC *Taking Stock* report as well as other measures towards promoting comparability of PRTRs.

Communications

The target audiences for NAPRTR products and information are governments, nongovernmental organizations working on pollution issues, industry, academics involved in related studies, environmental news reporters, and the average citizen looking for information about local, national or continent-wide pollution sources. Communication occurs through the CEC *Taking Stock Online* web pages and searchable integrated database, through the *Taking Stock* report, and at the annual public meeting of the NAPRTR project, where stakeholders can have input into the project process.

Information Management

Improved, integrated PRTR database: Data collection will initially be manual, but with greatly expanded ease of integration—in the future, possibly automated data collection. Users will have access to all reported data, as well as data subsets used for specific *Taking Stock* analyses.

This project will see development of the integrated North American database, including the development of data outputs, such as maps and graphics, to

enhance access and understanding by users. The improved database will enable better data access by users and, through standardization of certain elements (e.g., geographic coordinates conforming to the North American Atlas Framework), access for purposes of other users and CEC programs.

Implementation Plan

PROJECT 11 – Tracking Pollutant Releases and Transfers in North America (NAPRTR project)

Strategic Objectives:

- Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern.
- Make environmental information more widely available in order to facilitate local, national and regional action.
- Strengthen stakeholders' abilities to assess and manage pollutants of concern.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Complete data collection, analysis and interpretation for <i>Taking Stock 2006</i>	An integrated data set using the 2006 publicly available PRTR data from the Parties, and data from other programs as needed. This data set will become the basis for the <i>Taking Stock</i> report. A strategy for supplementing the NAPRTR data with additional information already collected by the Parties under other programs	March 2010: publication of integrated NAPRTR online database and 2006 PRTR data overview May 2010 publication of <i>Taking Stock</i> report and feature analysis	A quality-assured data set to support the <i>Taking Stock</i> report and other products Assessment of and recommendations of cost-effective actions to achieve data consistency Provide improved context for data interpretation	This information will assist Mexico's RETC, the US TRI program, and Canada's NPRI program in the evaluation of their data-reporting activities. Other beneficiaries include users of the information; NGOs, academics, industry, and citizens looking for information on toxic pollutants from industrial facilities.	\$54,000	
2. Complete and publish <i>Taking Stock 2006</i>	A North American comparative analysis of PRTR data to inform	Late May 2010	Dissemination of information for decision-making. Increase the public right-to-know	Citizens of the general public looking for information about pollutants from	\$80,000	

PROJECT 11 – Tracking Pollutant Releases and Transfers in North America (NAPRTR project)						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Make environmental information more widely available in order to facilitate local, national and regional action. Strengthen stakeholders' abilities to assess and manage pollutants of concern. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<p>decision makers about the sources, status and management of industrial pollutants. This information is available in printed form and online.</p> <p>Four-week advanced electronic copy of final report to the Parties</p>		<p>about pollution sources. Assist local pollution control agencies in assessing areas of concern. Provide industry with information that could be used in adopting cost-effective pollution control measures.</p> <p>Lead time for Parties to prepare for final publication</p>	industry, local and state/provincial governments, industry, academics, and NGOs working on health and pollution issues		
	<p>Quality Assurance Summary</p> <p><i>Report: Taking Stock 2006</i></p>	<p><i>Secretariat review:</i> Process begins with data collection from the Parties. The data are analyzed and suspect data identified in order to establish an integrated data set. Follows review and corrections of key data elements (involving input from Parties). Target publication release dates:</p> <ol style="list-style-type: none"> <i>Taking Stock Online</i> website, integrated database, and overview of 2006 data: March 2010 <ul style="list-style-type: none"> Party review (2 weeks) of data overview and key findings: January 2010. <i>Taking Stock 2006</i> report, including special feature chapter on releases to water: Late May 2010. <ul style="list-style-type: none"> <i>Party/Stakeholder/Expert review:</i> The special feature chapter is circulated to the Parties and selected stakeholders/experts for a three-week review (March 2010). Following the incorporation of comments, there is a Party clearance for the <i>Taking Stock</i> report, involving a four-week advance copy of the <i>TS06</i> News Release for the late-May report launch. <i>Public review:</i> PRTR stakeholders will meet in the fall of 2010 at the annual public meeting of the NAPRTR 				

PROJECT 11 – Tracking Pollutant Releases and Transfers in North America (NAPRTR project)						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Make environmental information more widely available in order to facilitate local, national and regional action. Strengthen stakeholders' abilities to assess and manage pollutants of concern. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		project, to discuss <i>Taking Stock</i> and advise on PRTR project priorities.				
3. Upgrade and enhance <i>Taking Stock Online</i> (Web application)	Incorporate data into <i>Taking Stock Online</i> to support electronic access and customized searches of the database, and enhance the information from the report by integrating graphics and mapping capabilities	Ongoing throughout 2010	Value-added information for the users, more efficient access to the data, and cost reductions associated with reduced need for printed materials	Citizens looking for information about pollutants from industry, local and state/provincial governments, industry, academics, NGOs working on health and pollution issues	\$35,000	Future upgrades will also focus on providing value added information and in streamlining the <i>Taking Stock</i> report
	Quality Assurance Summary <i>Ongoing Database/Online service: Taking Stock Online</i> (2007 data)	<ul style="list-style-type: none"> Extract data, prepare integrated database and datasets for analyses (March 2010), provided timely reception of the data from the Parties. Prepare data for online search tool, including latitudes/longitudes amenable to mapping applications (May 2010). Release data with publication of the online <i>Taking Stock 2007</i> database and data overview (Sept 2010). 				
4. Data collection and interpretation data for <i>Taking Stock 2007</i>	Publication of the integrated online North American	September 2010	A quality-assured data set to support the <i>Taking Stock</i> report and other		\$50,000	

PROJECT 11 – Tracking Pollutant Releases and Transfers in North America (NAPRTR project)						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Make environmental information more widely available in order to facilitate local, national and regional action. Strengthen stakeholders' abilities to assess and manage pollutants of concern. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	PRTR database and 2007 data overview Planning for <i>Taking Stock 2007</i> report structure		products Recommendations of cost-effective actions to achieve data consistency.			Work with the PRTR programs to expedite and synchronize data availability for <i>Taking Stock</i> report.
5. Work collaboratively with the Parties' PRTR programs on their efforts to improve data quality and reporting, including industry-focused workshops	Conduct trilateral industry-focused workshops on data consistency and reporting Validated RETC database for 2008 Collaborate with PRTR Officials through regular conference calls, meetings, and in reviewing relevant project documents	Ongoing throughout 2010	Provide timely, quality information to stakeholders and decision makers Improve data quality, comparability, reporting and consistency of PRTR programs	PRTR programs in Canada, Mexico, and the US, industrial sectors, and stakeholders	\$75,000	Continue work with the national PRTR programs in improving characterizations for industrial sectors of interest
6. Present the NAPRTR project and exchange information at various North American events	Increasing visibility of the CEC and enhancing outreach efforts of the	May 2010	Information exchange, beneficial to all Parties: to improve NAPRTR data presentation and provide	Environmental professionals, industry representatives, policy-makers, government	\$5,000	Increase outreach efforts with other regional PRTR efforts

PROJECT 11 – Tracking Pollutant Releases and Transfers in North America (NAPRTR project)						
Strategic Objectives: <ul style="list-style-type: none"> Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern. Make environmental information more widely available in order to facilitate local, national and regional action. Strengthen stakeholders' abilities to assess and manage pollutants of concern. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
related to PRTR efforts, (e.g., TRI conference, etc.) to increase project outreach resource leveraging	NAPRTR.		information and experience to related initiatives, as well as to recently-established regional or international PRTRs	representatives, and international organizations (including NGOs)		
7. Conduct stakeholder consultations, including the annual public meeting of the NAPRTR project, which will be held in the US in 2010	Present project results and receive input on potential focus area of <i>Taking Stock</i> and direction of PRTR project	Fall 2010	Information exchange among all stakeholder levels Promotion of national PRTR programs Provide opportunity for input in program developments	PRTR programs in Canada, Mexico, and the US; state/provincial/municipal representatives; industrial representatives; NGOs; concerned citizens	\$85,000	Increase stakeholder outreach and involvement, and promote greater use of PRTR information
Total Cost: \$384,000						
Performance Measurement Indicators: <ul style="list-style-type: none"> Reduced time lapse between data collection and final report distribution. Consistency in reporting requirements across PRTR programs, including reporting of priority pollutants, as recommended in the <i>Action Plan to Enhance the Comparability of Pollutant Release and Transfer Registers in North America</i>. Feedback from stakeholders (NGOs, all levels of government, citizens, academia, industry) about their use of PRTR information. Usage statistics for <i>Taking Stock Online</i> and requests for publications. 						Key Partners: Key partners include PRTR programs of the three countries

Project 12	Conserving Marine Species and Spaces of Common Concern	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$205,000	Working Group(s) associated with this work Biodiversity Conservation Working Group

Objective of Project

The purpose of this project is to assist the Parties in fulfilling their commitment to better conserve, protect and enhance the North American environment, specifically by completing the CEC's support for pilot projects that effectively demonstrate the benefits of trilateral collaboration, and that can be replicated in other regions.¹

Specifically this project is aimed at:

- Supporting the North American Marine Protected Areas Network (NAMPAN) initiative in assessing the adaptive capacity of Priority Conservation Areas (PCAs) on the Atlantic coast of Canada, the United States, and Mexico;
- Completion of CEC activities in support of the Pink-footed Shearwater (PFSW) North American Conservation Action Plan (NACAP).

Background

Project History and Foundation

The Plan for North American Cooperation for the Conservation of Biodiversity (the Biodiversity Strategy) was endorsed by the CEC Council in 2003². Holistic in design, the Biodiversity Strategy was intended to steward

trilateral efforts to conserve species and spaces and deal with common threats by strengthening local capacity, and using economic and market instruments in regions of ecological significance and conservation sites, like the Baja California to Bering (B2B) marine region.

The B2B initiative and the related marine North American Conservation Action Plans (NACAPs) have demonstrated pilot implementation of the Biodiversity Strategy and a framework for cooperation. .

Important milestones:

- June 1997—*Ecological Regions of North America: Toward a Common Perspective* was published;
- October 1999—17 terrestrial species were chosen as species of common conservation concern;
- July 2002—16 marine species of common conservation concern were agreed upon by the three countries;
- April 2003—priority conservation areas (PCAs) for the Baja California to Bering Sea (B2B) region were identified;
- June 2003—Council adopted the Strategic Plan for North American Cooperation in the Conservation of Biodiversity;
- June 2004—6 marine and terrestrial species were selected for NACAP implementation;
- April 2005—implementation of a network of monitoring sister sites in the B2B region began;
- 2005–2007—establishment of the B2B scorecards, a common framework to assess the ecological conditions of and understand

¹ Resolution 08-05: *The CEC Council will: "Consider expanding the strategic approach of the NAMPAN to embrace the Atlantic, the Gulf of Mexico and Caribbean, and the Arctic coasts of North America."*

² http://www.cec.org/files/PDF/ABOUTUS/Res-07-Biodiversity_en.pdf

the underlying pressures on biodiversity in selected marine protected areas (MPAs) throughout the B2B region;

- 2007–2008—the CEC implemented several training workshops for fishermen in support of Mexico’s decentralization initiative;
- May 2008—the Biodiversity Conservation Working Group (BCWG) endorsed the current project and recommended that the continuation of work on NAMPAN and the NACAPs in 2009;
- June 2008—CEC Council decided to consider expanding the NAMPAN strategic approach into other shared ocean ecosystems (e.g., North Atlantic, Gulf of Mexico and the Caribbean)³; and
- May 2009—based on Council directives, the BCWG proposes the Atlantic Coast of North America as a new focal region for the CEC.

Key Stakeholders, Resource Leveraging, Partnerships

Implementation of this project will continue to be in partnership with government agencies:

Task 1: NOAA (National Marine Sanctuaries, Estuarine Reserves, Fisheries), Interior (National Park Service, Fish and Wildlife Service) Fisheries and Oceans Canada (DFO), Environment Canada (EC), Parks Canada, the *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), *Instituto Nacional de Pesca* (Inapesca), including region’s NGOs, research centers, universities and local environmental agencies

Task 2: Oikonos for in-kind services (salaries and website), NOAA (contributing 50 percent of needed resources), in-kind services from Canada’s PFSW recovery team.

Advisory Groups Related to this Project

Biodiversity Conservation Working Group (BCWG); NAMPAN steering committee; and the PFSW NACAP ad hoc technical and scientific team.

Rationale

This project has assisted the Parties in strengthening their continental capacities and knowledge baseline to conserve priority species and habitats in a region of high ecological significance in North America.

³ Council Resolution 08-05 http://www.cec.org/files/PDF/ABOUTUS/08-05RES_en.pdf

This has been accomplished by:

- assisting the Parties in identifying, assessing and addressing the underlying causes of decline of three marine species of common conservation concern;
- helping fill capacity gaps in the monitoring of species and habitats of common interest;
- supporting the establishment of a functional network of MPAs, to assess and monitor the ecological integrity of key marine spaces; and
- promoting the project experience as a replicable model valid for application to other ecological significant regions in North America (monarch sister sites network, grasslands, etc.).

Fulfillment of Strategic Objectives

This project is linked to the fulfillment of the 2005–2010 Strategic Plan through the following⁴:

- Strengthening capacity, establishing a framework, and filling information gaps, in order for decision-makers to understand the underlying pressures on key habitats and priority species, and ways to promote sustainable development activities for a region of shared interest, as it has been achieved by the B2B scorecard framework;
- The sharing of scientific information and expertise to support and increase knowledge of key habitats and priority species, sustainable activities, and the prevention and reduction of destructive practices;
- One of the most comprehensive projects of NAMPAN to-date has been the establishment of the NAMPAN Condition Assessment Scorecard, which distills large amounts of complex technical and traditional/local ecological knowledge about MPA conditions for the west coast (B2B region) of North America. This year, 2010, represents the culmination of this initiative with the extension of this approach to the Atlantic/Caribbean region.

⁴ Refer to CEC’s Strategic Plan objectives.

North American Scope of the Project and its Relevance to the Three Parties

This project is aimed at supporting pilot projects to conserve species and spaces of common concern that effectively demonstrate the benefits of trilateral collaboration, and that can be replicated in other regions of ecological significance to North America.

In order to maintain ecological integrity, protect migratory species and transboundary habitat, and deal with common threats to marine ecoregions—particularly in the context of rapidly changing environmental conditions, a continental approach to marine conservation has been developed under the stewardship of the CEC. The North American Marine Protected Areas Network (NAMPAN) represents a trilateral network of resource agencies, MPA managers, and other relevant experts, and is intended to enhance and strengthen the conservation of biodiversity in critical marine habitats and help foster a comprehensive network of MPAs in North America by the appropriate agencies in the three countries.

In previous years, this project included work to support collaboration for the conservation of the leatherback turtle and the humpback whale, which, like the pink-footed shearwater, are among the 33 North American Species of Common Conservation Concern (SCCC).

The pink-footed shearwater task and activities outlined here are drawn from the CEC's North American Conservation Action Plan for this species.

Linkages with Other CEC Projects

- *Protecting priority conservation areas from alien invasive species*
- *Mapping North American Environmental Issues*

Activities and Outputs

Key Activities

- Assessing the adaptive capacity of PCAs on the Atlantic coast of Canada, the United States, and Mexico; and
- Training in survey methodologies to estimate seabird abundance and distribution in Mexico, including retrospective analyses of satellite

and at-sea survey data (2005–2008) of PFSW (capacity building: scientists and government experts).

Target Groups

Marine resource agencies, MPA managers, fishing communities, local fishery authorities.

Partners, Stakeholders

Implementation of this project will continue to be lead by NAMPAN and its associated government agencies, i.e., NOAA (MPA Center, Marine Sanctuaries, Estuarine Reserves, Fisheries), US Department of the Interior (National Park Service, Fish and Wildlife Service) Fisheries and Oceans Canada (DFO), Environment Canada (EC), Parks Canada, Conanp, Inapesca and various NGOs.

Leveraging

Potential leveraging from NOAA's Marine Spatial Planning initiative is to be used in the Atlantic region.

Outputs and Associated Timelines

Associated outputs/products include the following:

- A new set of MPAs⁵ implementing the B2B scorecard reporting;
- Report on the incorporation of ecosystem adaptive capacity criteria in MPA network design in the newly selected marine region (Atlantic to the Caribbean);
- Incorporation of NAMPAN's clearinghouse and online database into CEC and partner websites (Parks Canada, NOAA, and Conanp). The clearinghouse is a distributed system that allows visualization and analysis of North American monitoring data collected at sister sites, including, whenever possible, NACAP species; and
- New data for inclusion in the CEC's North American Environmental Atlas.

⁵ The NAMPAN ad hoc group in 2008 identified a trilateral set of remaining (and willing) MPAs in the B2B, which will have their staff trained on the scorecard methodology.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- A new marine region (Atlantic to the Caribbean—A2C) and PCAs in which to foster the design and establishment of a network of MPAs;
- Support for the recovery strategies for the PFSW that call for the identification of marine habitats of importance; to promote, support and augment international initiatives contributing to the recovery throughout their range; and to develop and implement educational activities; and address knowledge gaps concerning threats to the pink-footed shearwater.

Intermediate Outcomes

- Increased awareness and understanding of the underlying pressures, condition of marine biodiversity and its resiliency in the A2C region; and
- Implementation and adoption of strategies to address pressures to NACAP species (in particular the negative effects of bycatch).

Final Outcomes

- A network of MPAs in the Atlantic to the Caribbean region that incorporated adaptive management considerations in its design;
- MPA-based score carding system for the B2B and A2C regions;
- Adoption by fishermen and local and state governments, of effective strategies and programs to eliminate bycatch;
- Effective incentives for local fishermen in Mexico to reduce the use of unsustainable fishing gears;
- Increased capacity for local Mexican fishery stakeholders to implement actions to reduce bycatch;
- Greater policy coherence in and increased effectiveness of bycatch programs;
- Improved understanding of each of the NACAP species' migratory patterns and use of habitat, and the impact of human activities on these, including recommendations on conservation and management policies; and
- Increased trilateral collaboration and outreach to protect NACAP species in the B2B region.

Performance Indicators

- Established the basis for a network of MPAs in the A2C region;
- A self-sustaining NAMPAN organization;
- Number of trainees from local NGOs and resource agencies implementing monitoring and at-sea survey methods to assess trend and condition of threats and habitat use the of PFSW populations; and
- Number of days of seabird surveys conducted in focal region.

Timetable, Project Completion and Sustainability

Culminating Steps in Achievement of Program Objectives

- In 2010, NAMPAN starts its transition from the B2B region to the A2C region, as directed by Council.
- Staff from participating B2B MPAs have been identified and will champion the continuation and periodic reporting on the environmental conditions of the B2B region. A training course on the scorecard methodology will engage the remaining clusters of MPAs. Arrangements for its maintenance and sustained financing will be made with partner agencies in 2009.
- A self-sustaining NAMPAN organization.

Target End Date for CEC Involvement

- All activities described in this project description are intended to be completed in 2010.

Sustainability Beyond 2010

- In November 2009, at the Washington, DC meeting, the NAMPAN ad hoc group developed a SWOT⁶ process, with the objective of having a self-sustained NAMPAN, not dependent upon CEC resources or support, by 2011. A strategy and action plan to accomplish this transition will be developed in 2010.

⁶ Analysis of internal strengths and weaknesses; and external opportunities and threats.

- As required, the NAMPAN website and associated databases can be transferred to the new NAMPAN organization by 2011.

It is to be noted that a decision not to support these activities under the CEC post-2010 would require the cancellation of Council Resolution 03-07 mandating integrated continental cooperative efforts in biodiversity conservation.

Communications

The main target audiences of this project are: government agencies (Conanp, DFO and Environment Canada, Parks Canada, and the NOAA-MPA Center), fishery authorities and other state/provincial and local wildlife authorities, local fishing communities, scientists, NGOs.⁷ In keeping with the overall goal of improving information for decision makers and stakeholders at all levels, the products generated in this project will be made publicly available through electronic and print means—once these products have been approved by the quality assurance process where required.

Information Management

The B2B website will provide a knowledge base for species and spaces of common concern in the B2B and A2C regions: This site will include application that will collect, visualize, and analyze monitoring data from species (NACAPs) and spaces (MPAs) in the regions.

⁷ Participating NGOs will depend upon the region(s) selected for NAMPAN future implementation.

Implementation Plan

PROJECT 12 – Conserving Marine Species and Spaces of Common Concern						
Strategic Objectives:						
<ul style="list-style-type: none"> Strengthen capacities to conserve species and habitat of common concern by, building stakeholder capacity for planning, monitoring and management 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
NAMPAN						
1. Develop condition scorecards for three to five new MPAs in the B2B region (completion of 2009 activity)	Workshop to develop condition scorecards (as described in 2009 Operational Plan)	First quarter 2010	A comprehensive assessment of the current environmental conditions and trends in the majority of the Mexican MPAs in the B2B region	MPA staff, state governments (Sinaloa, Baja California Sur), resource agencies, general public, Conanp and Inapesca, UABCS, research centers	NA (2009 activity)	Capacity has been built and a functional network is in place to continue scorecarding activities in the B2B region, which could be implemented by government agencies and NAMPAN without financial assistance from the CEC
2. Build upon the B2B process in the Atlantic to the Caribbean (A2C) region to support the design and establishment of a network of MPAs there	<p>Development of a working paper, “Network design options for the Atlantic to the Caribbean region”</p> <p>Workshop to review and validate network planning criteria and adaptive management considerations</p> <p>Workshop to incorporate adaptive capacity</p>	<p>Winter-spring 2010</p> <p>Late spring 2010</p> <p>Summer-fall 2010</p>	Implement a methodology that applies current, science-driven network planning criteria as developed in Convention on Biological Diversity processes and elsewhere (such as connectivity and replication), to help North American MPA agencies collectively and individually consider how to plan an Atlantic to Caribbean network that builds on nationally-	Regional MPAs, Park and Fisheries agencies, universities, research centers, and federal and state/provincial agencies and conservation NGOs of the Atlantic to the Caribbean (A2C) region	<p>1. \$30,000</p> <p>2. & 5. \$55,000</p> <p>3. \$65,000</p> <p>4. \$20,000</p>	

PROJECT 12 – Conserving Marine Species and Spaces of Common Concern						
Strategic Objectives:						
<ul style="list-style-type: none"> Strengthen capacities to conserve species and habitat of common concern by, building stakeholder capacity for planning, monitoring and management 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<p>considerations into the network planning process for the A2C marine region</p> <p>Identification of a cluster of MPAs in the A2C region to replicate the scorecard methodology</p> <p>NAMPAN strategic plan for institutionalization</p>	<p>Fall-winter 2010</p> <p>Late spring 2010</p>	<p>identified, existing and candidate MPA sites, and in a manner that takes into account adaptive capacity and adaptive management</p> <p>(A) Sites identified to replicate environmental scorecarding methodology in the A2C region</p> <p>Strategy and action plan to institutionalize NAMPAN</p>			
NACAPs						
2 Analysis of at-sea survey data training undertaken to enable at-sea seabird research in México	<p>Identification of marine areas of importance to pink-footed shearwaters (PFSW) within North American waters.</p> <p>Training workshop on survey methodologies to estimate seabird abundance and distribution in</p>	PFSW migration season	Support the Canadian Recovery Strategy for the PFSW that calls to identify marine habitats of importance; promote, support and augment international initiatives contributing to the recovery throughout their range; and to develop and implement educational activities; and address knowledge gaps concerning threats to the	Wildlife and fisheries agencies of the three countries, as well as Chile; Members of the Canadian recovery team; fishing and local communities along the distribution ranges in North America of the species, local/regional decision makers, resource managers, MPAs, and general public	\$35,000	Task ends in 2010

PROJECT 12 – Conserving Marine Species and Spaces of Common Concern						
Strategic Objectives:						
<ul style="list-style-type: none"> Strengthen capacities to conserve species and habitat of common concern by, building stakeholder capacity for planning, monitoring and management 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Mexico, including likely areas for pink-footed shearwaters		Pink-footed Shearwater. Local agencies and NGOs will gain capacity to conduct at-sea seabird surveys in Mexico. Invited participants will include members of the Canadian recovery team, and Mexico's NABCI's coordinator Increased local participation in at-sea seabird surveys			
Total Cost: \$205,000						

Performance Measurement Indicators: <ul style="list-style-type: none"> Established the basis for a network of MPAs in the A2C region A self-sustaining NAMPAN organization The number of trainees from local NGOs and resource agencies implementing monitoring and at-sea survey methods to assess trends and conditions of threats and habitat use in PFSW populations Number of days of seabird surveys conducted in focal region Frequency with which the sister MPAs (beyond the existing 10) in the B2B report use the NAMPAN monitoring indicators and protocols 	Key Partners: A2C MPAs, NOAA (Marine Sanctuaries, Estuarine Reserves, Fisheries), Dept. of Interior (National Park Service, Fish and Wildlife Service) Fisheries and Oceans Canada (DFO), Environment Canada (EC), Parks Canada, Canada's PFSW recovery team, Oikonos, Conanp, Inapesca and various NGOs
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Project 13	Conserving the Monarch Butterfly and Promoting Sustainable Livelihoods	Responsible Project Manager at the CEC Secretariat	
Planned Allocation	C\$85,000	Working Group(s) associated with this work	Biodiversity Conservation Working Group (BCWG)

Objective of Project

The objective of this project is to complete, in 2010, the CEC's efforts to support implementation of the North American Monarch Conservation Plan (NAMCP).¹

The fundamental goal of the NAMCP is to maintain healthy monarch populations and intact habitats throughout the migration flyway in North America. This effort is supported by a trilateral monarch butterfly protected-area network, flyway monitoring in Mexico, Canada, and the United States, and where possible, sustainable development activities that support the use of market forces to promote conservation of over-wintering and flyway habitat, supporting improved livelihoods in conjunction with local communities.

Accordingly, this project completes activities detailed in the CEC's 2009 Operational Plan that were postponed at the request of the project task group. The 2010 tasks described here are designed to complete this work and draw the CEC's direct contribution to this effort to an appropriate conclusion.

Background

Project History and Foundation

The development of the North American Monarch Conservation Plan was initiated in December 2006 at the Monarch Flyway Conservation Workshop in Mission, Texas, and furthered at the March 2007 *Foro Regional Mariposa Monarca* in Morelia, Mexico. This initiative—endorsed by the Trilateral Committee for Wildlife and Ecosystem Conservation and Management in

2007—is focused on conservation of the monarch butterfly and its migratory phenomenon throughout the trinational flyway.

Following CEC's Council Resolution 07-09² directing support to the existing multi-stakeholder collaborative effort to develop a North American Monarch Conservation Plan, the CEC hosted a trinational workshop and obtained input from an extensive list of experts from diverse backgrounds. In June 2008, the NAMCP was completed and delivered to Council. Since that time it has been distributed and cited widely in the monarch conservation community in North America.

This plan provides an updated account of the species and its current situation, identifies the main risk factors affecting it and its habitat throughout the flyway, and summarizes the current conservation actions taken in each country. It offers a list of key trinational collaborative conservation actions, priorities and targets to be considered for implementation by the three countries. Moreover, the NAMCP provides an agreed-upon comprehensive framework for leveraging and coordinating the diverse conservation actions taking place across all three countries of the flyway beyond the completion of this project in 2010.

The activities described here build on the Council Resolution and will complete CEC activities commenced in 2009 or earlier, specifically:

- delivery of the socio-economic study examining root causes of habitat pressure throughout the monarch flyway;

¹ http://www.cec.org/Page.asp?PageID=924&ContentID=1398&AA_SiteLanguageID=1.

²

http://www.cec.org/Page.asp?PageID=122&ContentID=954&SiteNodeID=266&BL_ExpandID=&AA_SiteLanguageID=1.

- a training workshop to support ongoing monarch monitoring efforts, and improve exchanges of monitoring data and information trinationally; and
- scoping community-based activities in the Mexican overwintering sites, where sustainable economic approaches could assist in improving sustainable livelihoods while at the same time supporting conservation goals.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

Key stakeholders in the implementation of this project include:

- government agencies: *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), US Fish and Wildlife Service (US FWS), and Canadian Wildlife Service (CWS);
- local and state/provincial authorities;
- *Reserva de la Mariposa Monarca*—World Heritage Site, including local communities in the region of the over-wintering sites;
- Trilateral Committee for Wildlife and Ecosystem Conservation and Management;
- *Foro Regional Mariposa Monarca*;
- local and regional conservation groups; and
- scientists, schools and citizen conservation groups in all three countries.

Rationale

The monarch butterfly (*Danaus plexippus*), along with its migratory pattern unparalleled in nature, is an iconic species with considerable trinational significance—emblematic of the interdependence of North American ecosystems. The exceptional monarch migration phenomenon has attracted significant conservation effort and scientific attention, and was inscribed in 1983 on the IUCN Red List of Endangered Species. In July 2008, the UNESCO World Heritage Committee recognized the montane protected areas in Mexico, comprising the over-wintering sites of the monarch butterfly, as a World Heritage Site for precisely the same reasons—joining a distinctive list of 174 natural sites around the world of outstanding universal value.

Today, the migration phenomenon of the monarch butterfly is threatened by destruction, degradation, and fragmentation of breeding and migration habitat in Canada, the United States, and Mexico, due to land conversion, herbicides, pesticides, and exotic plant invasion, and to deforestation of wintering habitat in Mexico. There is an urgent need for additional ecological and socio-economic information to better protect the monarch butterfly and its habitats, while supporting local socio-economic development.

Fulfillment of Strategic Objectives

Efforts in 2010 are designed to support ongoing implementation of the NAMCP through support to trinational monitoring efforts, and addressing the socio-economic imperatives driving habitat degradation in the over-wintering areas as priorities. Concomitantly, this project supports culmination of the CEC's ongoing efforts in this project and fulfillment of the CEC's 2005–2010 Strategic Plan. At its conclusion this project will have fulfilled specific objectives of that Strategic Plan in the following manner:

Capacity Building

- supporting coordination and building capacity among local, national and international agencies and NGOs involved in the conservation of monarch butterfly habitat and its migratory phenomenon;
- training and developing capacities at local and regional levels to assess the status of the monarch population, its habitat, and the environmental stressors, based upon long-term trinational monitoring and assessment protocols;

Information for Decision Making

- addressing information gaps in the understanding of North American decision-makers (particularly Conanp, USFWS, and CWS) regarding the underlying pressures on the monarch and its habitat throughout the entire flyway, and of the means to address them; and,

Trade and Environment

- promoting community-based activities that will reduce pressure on key monarch habitat, particularly in over-wintering areas, while at the same time improving livelihoods in local communities in the vicinity of these sites.

North American Scope of the Project and Its Relevance to the Three Parties

The monarch butterfly is an iconic migratory species of unique trilateral significance. All project tasks and activities outlined here are drawn from the North American Monarch Conservation Plan (as approved by the Parties) and are of unique trilateral importance, as proposed by the trilateral project task group.

Conserving the monarch over-wintering sites in Mexico, as well as working to improve foraging/breeding success along the entire length of the flyway, is of critical importance to maintaining viable monarch populations in North America. This project will support ongoing trilateral collaboration towards improving monarch monitoring efforts, sharing of data from these efforts, and contributing towards critical habitat conservation in the Mexican over-wintering sites.

Since the initiation of monarch butterfly conservation activities within the CEC in 1996, interest in conservation, education, and monitoring efforts has grown rapidly in North America—particularly among nongovernmental organizations (NGOs) and academia. There is now widespread recognition of the need for an integrated, continental strategy to protect and maintain key habitat along the monarch's flyway, while addressing the root causes of habitat deterioration.

CEC Niche and Value Added

The CEC's role in this project over the long term has been to build consensus around a shared conservation strategy for the monarch butterfly (the North American Monarch Conservation Plan) and assist in implementing those aspects of the plan that specifically benefit from coordinated, trilateral effort – work which is now largely completed. The trilateral task group for this project has also identified standardized monarch monitoring efforts across North America as essential for the management of this species and its habitat. As such, the CEC is utilizing its considerable experience in the management and sharing of environmental data in trilateral efforts to improve collaboration in the access and use of these assets in support of conservation efforts for this species.

Activities and Outputs

Key Activities

Work described here concludes tasks initiated in 2009 but postponed due to recommendations from the project task group. All tasks are designed to complete this work and draw these to a logical conclusion in 2010. Tasks conform to priority actions identified in the North American Monarch Conservation Plan (NAMCP):³

- Funding of community projects in the Mexican over-wintering sites selected from the 2009 analysis;
- Ongoing training in standardized monarch monitoring techniques completed, following from the results of the October tri-national 2008 monitoring training workshop; and,
- Development of tools that improve access to monarch observational data for the scientific and conservation communities.

Target Groups

Target groups for the 2010 tasks are federal and state/provincial governments, NGOs, and academic organizations involved in monarch butterfly monitoring initiatives, as well as community-based organizations involved in habitat conservation and socio-economic activities around key protected areas along the North American flyway.

Partners, Stakeholders

Project stakeholders include the *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), the US Fish and Wildlife Service, the Canadian Wildlife Service (i.e., the CEC Project Task Group), along with relevant state/provincial authorities. Also included are local/regional community groups and conservation organizations, as well as academia and citizen science groups in all three countries. The latter are primarily involved in scientific, monitoring and data collection efforts, as well as in habitat conservation activities.

³ As instructed by Council Resolution 07-09, the Secretariat coordinated stakeholder and expert meetings in December 2007 to assist in the development of the North American Monarch Conservation Plan. A wide array of experts, government agencies, NGOs and local and federal authorities participated in its development.

Leveraging

The 2010 activities are designed to build on existing trilateral networks and initiatives in monarch conservation—whether in ongoing monitoring efforts across all three countries or in linking directly with community-based projects designed to link conservation of key protected areas to sustainable development. In this way, implementation of 2010 activities leverages (and is leveraged by) ongoing activities, and will contribute to overall sustainability of outcomes.

Outputs and Associated Timelines

The table below provides detail on the specific tasks, outputs, and timelines for this project in 2010.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

- Consensus developed among key stakeholders regarding the most viable existing socio-economic activities that can support both species/habitat conservation goals and improved sustainable livelihoods;
- Increased participation of local communities in promoting local economic (sustainable development) initiatives that support conservation of critical monarch habitat;
- Training on monarch monitoring protocols in all three countries (completed); and
- Improved understanding of needs and requirements to support collaborative sharing and integration of monarch monitoring data.

Performance Indicators

- Identification of specific community-based projects/activities in the Mexican overwintering sites that best support the objectives and planned actions of the NAMCP; and
- Improved availability of comprehensive of monarch monitoring measured as absence/presence of monitoring data available for download from known research or conservation organizations/actors.

Intermediate Outcomes

- Improved trilateral collaboration on the assessment and continuous monitoring of the species, its habitat, and its stressors, throughout the flyway; and
- Improved understanding among parties and other stakeholders re best practices supporting sustainable economic activities that promote both habitat conservation practices.

Performance Indicators

- Number of protected areas and monarch conservation organizations in North America adopting the NAMCP to guide their conservation actions; and
- Success of trilateral monitoring efforts in improving overall understanding the status of monarch populations and the migration pattern.

Final Outcomes

- Adoption of effective trilateral strategies and programs to address monarch habitat loss and degradation; and
- Healthy monarch populations and conserved habitats throughout the North American migration flyway.

Performance Indicators

- Tracking of land use/land cover changes over time (net losses/gains) in key monarch migration and overwintering habitat; and
- Monitoring results indicating stable or growing populations of monarch butterfly populations along the flyway.

Timetable, Project Completion and Sustainability Beyond

Culminating Steps in Achievement of Program Objectives

The action plan of the NAMCP represents a long-term conservation undertaking across all three countries in North America. Both past and current project results provide support for ongoing trilateral cooperation in support of the North American Monarch Conservation Strategy.

Target End Date for CEC Involvement

The year 2010 represents the conclusion of CEC-coordinated activities in support of the North American Monarch Conservation Plan (NAMCP).

Sustainability Beyond 2010

Project activity for 2010 will proceed as described herein and is designed to build on achievements of the Conserving the Monarch Butterfly Project over the past three years. Canada, Mexico, and the United States are already investing in a variety of monarch conservation initiatives across the flyway. It is expected that the lessons learned by the implementation of the NAMCP will allow the Parties and other relevant stakeholders to continue working together and using the NAMCP as a framework for targeted collaborative actions for the conservation of this species within North America.

The CEC has been instrumental in facilitating consensus building amongst the Parties and in the development of a common conservation strategy for the monarch butterfly. This process is now largely completed. Numerous national and continental conservation initiatives currently exist for this species, based in large part on the NAMCP. Finally, all efforts on improving monarch-monitoring data have been oriented toward ensuring continuity in collecting data and improving access to them for all interested parties.

Communications

The main target audiences of this project are: key government agencies (federal and state/provincial) involved in protected area and wildlife management, local communities, scientists, citizen conservation groups, and the interested public.

Information Management

All outputs planned for 2010 relate to building capacity with key project stakeholders. No print or electronic outputs designed for broad public consumption are planned for this implementation period.

Implementation Plan

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods

Objective:

- Complete the CEC's efforts to support implementation of the North American Monarch Conservation Plan

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Funding of community projects selected from the 2009 analysis Note – this task addresses issues arising from the socio-economic study of the monarch flyway and issues arising from the 5th <i>Foro Monarca</i> , with respect to identifying sustainable economic approaches to support conservation efforts and the improvement of local livelihoods and capacity-building activities.	Consensus/decision on selection of projects for further investment, and agreement on conditions for distribution of resources Note – this is in completion of the 2009 task.	March 2010	Understanding among parties improved, re: best practices supporting sustainable economic activities that promote both habitat conservation and improved livelihoods, including improved local understanding and involvement to take advantage of existing trade mechanisms in North America	Local communities neighboring monarch over-wintering sites in Mexico, including government and local agencies involved in monarch conservation	\$30,000	
2. Development of tools that improve access to monarch observational data for the scientific and conservation	Development of prototype web-based data portal that provides access to monarch observational data	Jan–Aug 2010	Clarity, consensus achieved regarding needs and requirements to support collaborative sharing (including integration) of monarch monitoring data.	Field-based offices of national and (where appropriate) state/provincial-level wildlife agencies, as well as citizen science groups	\$20,000	

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective: <ul style="list-style-type: none"> Complete the CEC’s efforts to support implementation of the North American Monarch Conservation Plan 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
communities	<p>for the scientific and conservation communities, in conjunction with MonarchNet</p> <p>This task in 2009 underscored the importance of improving access to monitoring data for this species. The current task will complete this work in 2010 and ensure access to monitoring data by conservation partners beyond the conclusion of CEC support.</p>		Improve access and use of scientific monitoring data for the long-term management of this species of common concern	and relevant academic institutions in all three countries		

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective:						
<ul style="list-style-type: none"> Complete the CEC's efforts to support implementation of the North American Monarch Conservation Plan 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
3. Training workshop undertaken utilizing “campesino-to-campesino” approaches to support alternative sustainable economic activities (participants drawn from task 1 above)	Community project managers from local communities trained by participants from neighboring communities on the use of sustainable land-use practices Note – this is in completion of the 2009 task.	Jan-Feb 2010	Increased number of “land owners” from pilot communities participating in sustainable practices	Local communities neighboring monarch over-wintering sites in Mexico, including government and local agencies involved in monarch conservation Local authorities, local communities, conservation groups	\$13,000	
4. Ongoing training in standardized monarch monitoring techniques, following from the results of the October trilateral 2008 monitoring training workshop	Local training and capacity building workshops organized by relevant agencies of Canada, the US, and Mexico—including trilateral cooperation where required This task draws to a close work initiated but not concluded in 2009. It includes support for translation and editing of existing documents requested	Sept 2010	Local capacity for planning and implementing standardized monitoring techniques improved, including overall management of this species of trilateral concern	Field-based offices of national and (where appropriate) state/provincial-level wildlife agencies, as well as citizen science groups in all three countries	\$22,000	

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective: <ul style="list-style-type: none"> Complete the CEC's efforts to support implementation of the North American Monarch Conservation Plan 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	by the project task group but not envisioned when the 2009 project description was developed.					
Total Cost: \$85,000						
Performance Measurement Indicators: <ul style="list-style-type: none"> Identification of specific community-based projects/activities in the Mexican overwintering sites. Improved availability of comprehensive monarch monitoring measured as absence/presence of monitoring data available for download from known research or conservation organizations/actors. Number of protected areas and monarch conservation organizations in North America adopting the NAMCP to guide conservation actions. Success of trinational monitoring efforts in improving overall understanding the status of monarch populations and the migration pattern. Tracking of land use/land cover changes over time (net losses/gains) in key monarch migration and overwintering habitat. Monitoring results indicating stable or growing populations of monarch butterfly populations along the flyway. 						Key Partners: Government protected-area and wildlife agencies, local NGOs, citizen science organizations

Project 14 Protecting Priority Conservation Areas from Invasive Alien Species	Responsible Project Manager at the CEC Secretariat
Planned Allocation C\$95,000	Working Group(s) associated with this work Biodiversity Conservation Working Group (BCWG)

Objective of Project

The objective of this project is to contribute to the protection of [Priority Conservation Regions](#) (PCRs)¹ in North America from the harmful effects of invasive alien species (IAS).

The project will take stock of current work on IAS risk assessment with a view to identifying new areas of trilateral cooperation, specifically with respect to early warning and prevention of invasive species associated with trade and economic process in North America. In addition, the project will assist in establishing a framework of potential future trilateral engagement on this issue to inform development of the 2010–2015 CEC Strategic Plan.

Implementation of the 2010 project activities described here will draw to a close the CEC's efforts with regard to alien invasive species under the CEC's current strategy for the conservation of biodiversity.

Background

Project History and Foundation

Canada, Mexico and the United States have a long history of regulatory and non-regulatory action to address invasive alien species within the CEC work program. In 2001, the CEC convened a North American workshop to identify opportunities for trilateral cooperation.² In 2003, the Biodiversity Program, in partnership with the CEC's Joint Public Advisory Committee (JPAC), organized a public meeting to further define issues of priority: "An

Unwelcome Dimension of Trade: The Impact of Invasive Species in North America."³

Based on earlier results and recommendations of JPAC, in 2004 the CEC developed a directory of projects, institutions and experts working on aquatic IAS in Canada, Mexico and the United States. In 2005 the CEC partnered with the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio) to develop the Mexican Information System on Aquatic Invasive Species. The resultant database includes taxonomic information, geographic distributions, and other scientific information. In 2005 the CEC developed a resource guide aimed at providing the governments and other stakeholders with background information to understanding the causes and consequences (as well as status and trends) of biological invasion in North America's aquatic and marine systems. These achievements have contributed directly to the development of domestic IAS management strategies in North America.

Other milestones of recent CEC engagement include:

- In 2005 the CEC identified two groups of fishes within the aquarium trade pathway to develop the Risk Analysis Guidelines for field-testing under the CEC. This work builds upon the United States' Aquatic Nuisance Species Task Force Generic Non-indigenous Aquatic Organisms Risk Analysis Review Process. The two groups selected were: Snakeheads (*Channidae*) and Plecostomus (armored or suckermouth catfishes of the family *Loricariidae*).
- In 2006, the CEC supported the creation of a database on Canadian imports of freshwater live-fish as part of its efforts to raise the

¹ Strategic Plan for North American Cooperation in the Conservation of Biodiversity
http://www.cec.org/Storage/84/7949_Biodiversitystrategy.pdf.

² http://www.cec.org/files/PDF/BIODIVERSITY/aquatic-invasives_en.pdf

³ http://www.cec.org/files/pdf/ABOUTUS/SR-Invasive-Species-4-Dec-2003_en.pdf

capacity of its country members to gather, systematize, and analyze information on aquatic IAS.

- In 2007 the CEC undertook two test case study risk assessments for the Snakehead and Plecostomus. These risk assessment guidelines, currently in print, are applicable to aquatic and terrestrial pathways of introduction of high-risk species and meet the NAFTA requirements for risk assessment (Chapter 7, Section B: Sanitary and Phytosanitary Measures).
- In that year the CEC undertook a socio-economic study on the impact of invasive species, particularly Plecostomus, in the Infiernillo Reservoir (Mexico), along with a Loricariid taxonomic analysis. This work, currently in print, directly addressed two key CEC priorities—specifically improved availability of information and increased capability to prevent and control freshwater aquatic invasive species.
- Also in 2007 the CEC supported the strengthening of the Mexican IAS system and contracted NatureServe to assess the interoperability of information systems and develop a prototype that could be used on priority areas.
- In 2008 the CEC identified a cluster of “hotspots”—areas of high ecological value where the ecological integrity may be at risk from biological invasions.
- In 2009 the CEC launched the Risk Management Guidelines for Aquatic Invasive Species,⁴ and undertook detailed reviews of invasive species in two marine ecological regions on the Atlantic coast.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

Including the Parties, the primary stakeholders in this initiative have been The Nature Conservancy and NatureServe. The project has benefited from the experience of both organizations in addressing invasive alien species issues, particularly in the context of IAS pathways and information management strategies.

4

http://www.cec.org/Page.asp?PageID=122&ContentID=1399&SiteNodeID=243&BL_ExpandID=&AA_SiteLanguageID=1

Advisory Groups Related to this Project

An advisory group for this project, with representatives from Canada, the United States, and Mexico, was re-formed in April 2009 under the auspices of the Biodiversity Conservation Working Group.

Rationale

Fulfillment of Strategic Objectives

This project is focused on strengthening capacity and addressing key information gaps, particularly at a trilateral level. This will contribute to a coherent and focused approach to addressing the impact of trade-related biological invasions in North America. In addition, this project contributes to the improving border safety and security more generally within North America.

This project contributes to the fulfillment of CEC’s 2005–2010 Strategic Plan through:

- Strengthening capacity and addressing information gaps for North American decision-makers to address the risk of biological invasions, particularly at sites of high ecological significance and vulnerability (Objectives 1, 7);
- Enhance trilateral information sharing and use among field-level control agents to gather, analyze and systematize information on invasive alien species from other countries, to assist relevant decision making processes to prevent biological invasions (Objective 2); and
- Further support a trilateral framework for IAS information sharing and capacity building within key government agencies and organizations in North America (Objective 4).

- Implementation of this project will complement other efforts during 2009 to inform development of the CEC 2010–2015 Strategic Plan—as well as future efforts with respect to address trade-related impacts upon biodiversity.
- In addition, implementation of the above during 2010 will draw to a close the CEC’s efforts with regard to alien invasive species. The project has heightened awareness within North America and amongst the Parties of the regional trade-related and environmental concerns posed by invasive alien species, and contributed to improving trilateral capacity to manage IAS pathways and improve information management.

Trade and Environment

The economic impact of invasive alien species is one of the most tangible and unintended effects of market integration and globalization, largely wrought through regional or international trade mechanisms as well as tourism. Experience has shown that while some invasive species can have little or no environmental or economic impact, other species can have devastating environmental effects⁵ and impact multiple sectors of the economy through lost production or eradication costs. This project will contribute to improving understanding of trade-related pathways, and helping to coordinate trilateral control efforts.

North American Scope of the Project and its Relevance to the Three Parties

As invasive species routinely cross borders, often linked to trade and transportation corridors, the NAFTA governments have recognized that it is imperative that international cooperation represent a key component of their domestic IAS management strategies. This cooperation is well established in the agricultural and forestry sectors, including significant bilateral collaboration in ecoregions such as the Great Lakes. These and similar inter-governmental processes will help to ensure the sustainability and ongoing usefulness of project results.

⁵ The International Union for Conservation of Nature (IUCN) rates invasive species as the second greatest threat to biodiversity behind habitat loss.

There remains significant scope to help foster trilateral cooperation on the management of invasive alien species within North America in sectors or ecoregions where trilateral management efforts currently do not exist or are not well developed. These include, for example, marine invasive species in coastal ecological regions of trilateral significance or in improved data and information sharing across all three countries.

CEC Niche and Value Added

While there is significant trilateral cooperation on IAS in some sectors in North America, as noted above, there are significant sectoral or ecoregional gaps. The CEC is well positioned to address these gaps and add value, through facilitated trilateral collaboration, in priority ecoregions of shared concern with Mexico, Canada, and the United States.

Linkages with Other CEC Projects

Opportunities for effective interaction exist with a number of existing CEC initiatives including as activities related to compliance and enforcement of environmental laws. Numerous external links exist as well, such as the regional IAS management initiatives under the North American Plant Protection Organization. Agreement amongst the Parties on a specific priority ecoregion (or sector) within which the CEC will concentrate efforts within this project will contribute substantially to defining the specific nature and direction of these interactions.

Activities and Outputs

Key Activities

Key activities and outputs of this project in 2010 include:

- Agreed criteria developed and utilized for the identification of priority areas (hotspots) susceptible to biological invasions, including issues/sectors of common concern in these areas;
- Improve access to and use of work products from 2007 to 2010 on aquatic risk assessments, analysis of hotspots, ecoregional analyses, pathways management - to ensure these products are useful to invasive species management officials;
- Common priorities, gaps, and opportunities for ongoing trilateral cooperation on IAS identified; and

- Field-level capacity building undertaken (where identified and necessary) on best management practices for the detection and control of new introductions of IAS.

Target Groups

The primary target group for this project continues to be decision-makers and resource managers, particularly with federal and state/provincial level authorities with responsibility for management of invasive species linked to trade.

Partners, Stakeholders

Key partners that will participate in the implementation of this project include US and Canadian government agencies with responsibilities for detection and prevention of invasive species (re: domestic national strategies) as well as Conabio and other Mexican agencies involved in the detection and prevention of invasive species, and the Global Invasive Species Programme (GISP).

Leveraging

This project has benefited significantly from the extensive research and data collection work on invasive alien species within North America, particularly in the agricultural, marine, freshwater, and forestry sectors. Direct financial leverage from sector partners is not assumed for the completion of this project.

Outputs and Associated Timelines

The timetable for the delivery of project outputs for 2010 is outlined in the table below.

Anticipated Outcomes and Performance Indicators

The expected outcomes and performance indicators of the project include:

Direct Outcomes

- Increased understanding of risks of potential biological invasions in North American along key pathways and priority conservation regions.

Performance Indicator

- Identification of priority issues or regions of common concern to North American, including definition of an approach for future trilateral cooperation on invasive species work.

Intermediate Outcomes

- Improved trilateral strategies to reduce bio-invasion risks originating from trade-related pathways in selected priority areas of common concern; and
- Strengthened institutional capabilities of response and prevention in selected priority areas and at along key pathways.

Performance Indicators

- Engagement of key participants or organizations in the process of identifying priority issues and approaches for future CEC work on invasive species; and
- Specific strategies to control or respond to bio-invasion risks originating from trade-related pathways.

Final Outcomes

- Strengthened capacity to address IAS issues in North America that will benefit directly from coordinated trilateral cooperation.

Performance Indicators

- Degree of active participation of key stakeholders, particularly among the three North American governments, that can be engaged in future invasive species work.

Timetable, Project Completion and Sustainability

A timetable for the completion of outputs and project deliverables is provided in the table below.

Culminating Steps in Achievement of Program Objectives

The project will have contributed to improving understanding within North America of trade-related and environmental impacts resulting from invasive alien species, and helped to improve capacity to address this issue.

Target End Date for CEC Involvement

This project is scheduled to end in 2010.

Sustainability Beyond 2010

Over the life of this project, each of the countries in North America developed strategies, inter-agency coordinating bodies, and action plans to address the environmental and economic impacts of invasive species. These mechanisms are now sufficiently robust to include trilateral collaboration efforts in the control of the spread of invasive species across international boundaries. Activities under this project in 2010 will concentrate on ensuring that products generated to-date are utilized as extensively as possible by government and nongovernmental agencies involved in invasive species management. Parties will also have an opportunity to discuss and identify preferred mechanisms for future trilateral collaboration in 2010 on invasive species management beyond CEC involvement.

Future work in support or continuation of these activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Communications

The primary target group for this project includes decision-makers and resource managers, particularly with federal and state/provincial level authorities with responsibility for management of invasive species linked to trade. Project outputs will be communicated to the participants in this project through print and electronic means.

Information Management

Outputs from this project in 2010 are currently anticipated for internal use by the Parties only.

Implementation Plan

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective: <ul style="list-style-type: none"> Contribute to the protection of Priority Conservation Regions (PCRs) in North America from the harmful effects of invasive alien species (IAS). 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Agreed criteria developed and utilized for the identification of priority areas (hotspots) susceptible to biological invasions, including issues/sectors of common concern in these areas	A consensus-based working paper feeding into a workshop to identify priority areas (within the selected PCRs) that are of high conservation significance and particularly susceptible to biological invasions, in order to focus cooperative action, to the extent possible, and identify specific tasks to undertake within those priority areas	March/April 2010	Increased awareness and understanding of the risks of potential biological invasions in North America Improved trinational collaboration to reduce new introductions of IAS PCRs in North America	Government agencies dealing with invasive species in each of the three NAFTA countries, e.g., US Department of Agriculture, Conabio, EC, scientists and resource managers, local and state authorities	\$30,000	
2. Improve access to and use of work products from 2007 to 2010 on aquatic risk assessments, hotspots analysis, ecoregional analyses, pathways management—to ensure these guidelines are useful to government inspection and customs services, as well as for addressing risks along other pathways—and to improve the impact of	Report from the assessment of the CEC's work on invasive alien species from 2006 to 2008	Nov 2010	Improved methods for ensuring best available information for IAS control and rapid response to non-specialists (border officials, customs inspectors, etc.)	Key partners: Conabio, Environment Canada, Canadian Border Services Agency and other relevant govt. departments/agencies; US Environmental Protection Agency, various offices, US Department of Homeland Security/Office of Customs and Border Patrol; US Department	\$15,000	

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective: <ul style="list-style-type: none"> Contribute to the protection of Priority Conservation Regions (PCRs) in North America from the harmful effects of invasive alien species (IAS). 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
these guidelines				of Interior and its agencies; US Department of Agriculture/various inspection services; law enforcement and environmental protection agencies, inspection services and custom agencies personnel in Mexico		
3. Common priorities, gaps, and opportunities for ongoing trilateral cooperation on IAS identified	Workshop involving IAS Task Group members, T&EWG members, BCWG members, and outside experts	June 2010	Contribution to consultation among Parties on this issue, and potentially informing the development of the CEC Strategic Plan 2010–2015	IAS ad hoc advisory group members, BCWG members	\$30,000	
4. Field-level capacity building undertaken (where identified and necessary) on best management practices for the detection and control of new introductions of IAS	Harmonized protocols on best management practices for the detection and prevention of new introductions of IAS, strengthened trilateral capacities at field level	July 2010	Improved methods for ensuring best available information for IAS control and rapid response to non-specialists (border officials, customs inspectors, etc.)	Field staff at key ports and border entry points	\$20,000	
Total Cost: \$95,000						
Performance Measurement Indicators:						Key Partners:

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective: <ul style="list-style-type: none"> Contribute to the protection of Priority Conservation Regions (PCRs) in North America from the harmful effects of invasive alien species (IAS). 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
<ul style="list-style-type: none"> Identification of priority issues or regions of common concern to North American, including definition of an approach for future trilateral cooperation on invasive species work. Number of priority areas (within the selected Priority Conservation Regions) that are of high conservation significance, and are particularly susceptible to biological invasions, that have strategies to prevent, control and eradicate IAS. Engagement of key participants or organizations, including through participation of the JPAC, in the process of identifying priority issues and approaches for future CEC work on invasive species. Degree of active participation of key stakeholders, particularly among the three North American national governments, that can be engaged in future invasive species work by the CEC. 						Government wildlife management agencies and departments responsible for invasive species.

Project 15	Conserving North American Grasslands: Building Capacity for Grasslands Biodiversity Conservation in Northern Mexico	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$130,000	Working Group(s) associated with this work Biodiversity Conservation Working Group

Objectives of Project

This project seeks to complete work that was initiated in mid-2009 but not completed, and brings consequential activity to an appropriate conclusion by the end of 2010. The 2009 project was intended to build upon previous CEC-sponsored work that established the North American Bird Conservation Initiative (NABCI). As such it also supports the goals outlined in the CEC's *Grasslands, Toward a North American Conservation Strategy* (2003).

Objectives for the project are as follows:

1. Establish a Northern Mexico Regional Grassland Conservation Alliance (the Regional Alliance), including a shared conservation strategy;
2. Support comprehensive grassland bird monitoring and inventory programs; and
3. Complete the (2009) map and descriptions of priority conservation areas for the North American grasslands.

Globally, grasslands are one of the most threatened habitat types and generally one of the most under-represented in protected area systems. The grasslands of North America are no exception and their loss through habitat conversion has led to equally severe declines in the bird species and other biota. Research carried out by The Nature Conservancy (TNC), CEC and others with migratory birds such as the ferruginous hawk illustrate how the large remaining natural grasslands are stepping stones for migratory birds

throughout the Central Grasslands.¹

Conservation of grasslands will depend on integrated and coordinated action in Mexico, the United States, and Canada.

Proposed work within this project directly complements long existing tri-national partnership activities focused on training, technical assistance, and protection and enhancement of grassland habitat by local and national governments, nongovernmental partners and international organizations. However, due to still limited conservation investments in northern Mexico, and its acknowledged importance for grassland birds from the entire continent, this initiative focuses much of its actions in Mexico.

Background

The central grasslands of North America represent one of the continent's largest biomes and the only fully trinational terrestrial ecological region in scope. They harbor a rich diversity in species, many of which are endemic. Human-dominated disturbances have significantly transformed this ecosystem across its entire range to the point that it is considered to be among North America's most endangered ecosystems. While grasslands have been under pressure from human disturbance for over 150 years (e.g., livestock grazing, agricultural conversion), new threats are now pervasive across the biome (e.g., invasive species, urban sprawl/residential development, energy extraction, and wind-power development).

¹ See <http://www.ferruginoushawk.org>.

Most conservation planning and action has been at local or regional scales, and mostly within one nation or proximate to international borders. Bi- or trilateral cooperation, planning, and action are necessary to conserve the full range of the central grassland's biota and ecological processes at all scales. Examples include: Partners in Flight (PIF), the Canadian and US Shorebird Conservation Plans (CSCP/USSCP), Joint Ventures, Canadian Wildlife Service (CWS), US Fish and Wildlife Service (USFWS), US Forest Service (USFS) and the North American Bird Conservation Initiative (NABCI) Trilateral Committee.

Some of the most expansive remnants of desert grassland habitat are found in northern Mexico, including the Janos Valley, Chihuahua, the Saltillo grasslands in the states of Coahuila and Nuevo Leon, along with the plains of central Sonora. The valley harbors the largest complex of remaining black-tailed prairie dog colonies in the world. Over 250 species of birds have been recorded throughout the area. In the Mexican state of Sonora, northern and central grasslands provide critically important habitat for North American migratory birds. The Saltillo Grasslands region provides some of the most important remaining breeding, migration and wintering habitat for many declining grassland species of continental importance, including the mountain plover, long-billed curlew, and burrowing owl.

The economy of the region is closely tied to cattle ranching and irrigated agriculture, on both private and communally controlled lands. In an area this large, and with complex social conditions, effective conservation requires a suite of strategies. The Janos Valley, for instance, has several serious, linked threats, such as the cumulative effect of unsustainable grazing from more than 150 years of intensive livestock production and, more recently, the conversion of grazing lands into agricultural production. A third threat is the overuse of the aquifer for irrigation. The effects are noted in the drying-out of water wells for cattle, the growing scarcity of water for use in local communities, and the general lowering of the water table.

To promote conservation throughout such areas, a community-focused effort is envisioned that would strengthen the relationship between conservation organizations, local communities, private agricultural interests, and government. As a result, it is hoped that communities throughout the valley will develop a new understanding of the importance of their grasslands for both ecosystem health and community wellbeing. In Mexico, as elsewhere on the continent, grasslands are predominantly privately owned and thus receive

little traditional protective management. A program to identify incentives to private landowners to protect, conserve, and restore these grasslands is considered a priority action.

The Mexican grasslands are closely linked to a network of remaining grassland habitat throughout the Great Plains. These priority conservation areas were identified primarily for their importance in conserving high priority migratory grassland birds, though their protection would ensure much broader ecosystem benefits. Currently, the majority of these areas has no formal protection and is under significant threat from ongoing habitat conversion.

Key Stakeholders and Priority Areas

The importance of North America's grasslands has long been recognized by conservation organizations and partners. The focus has been to identify critically important areas that need to be conserved by different conservation mechanisms through private and governmental organizations. Some of these efforts include the Important Bird Areas program, implemented by partners in Canada, Mexico, and the United States using a methodology developed by Birdlife International and the Ecoregional Planning Program of The Nature Conservancy. Other stakeholders include the World Wildlife Fund, the Rocky Mountain Bird Observatory (RMBO), and Pronatura.

Rationale

The foundation for this project is the trilateral *Declaration of Intent for the Conservation of North American Birds and their Habitat* in which the governments of Canada, the United States and Mexico recognize the importance of collaborative conservation achievements such as those supported by the NABCI. Motivated by a desire to conserve birds in North America, this approach recognizes that habitat protection is a key requirement and that healthy ecosystems will in turn support healthy communities and species. In this effort, bird conservation can be seen as a method of focusing on a key indicator that is more easily measured to determine if conservation actions have been effective.

Within the NABCI, several projects have been initiated to address key conservation needs, including one for grasslands. The CEC Grasslands project aims to conserve and restore grassland ecosystems in the Janos Valley and Saltillo Grasslands regions, in order to guarantee the continuity,

connectivity, composition, structure, and ecological processes (migratory, hydraulic, and natural fire regimes, among others) which underpin their health and viability.

Need for partnership building and coordination: This initiative is directly connected to long existing trinational activities focused on training, technical assistance, and enhancement of grassland habitat by local and international partners. Mexican partners working in both the Janos Valley and Saltillo Grasslands have been integral participants in these trinational efforts. There remains a need for an established partnership in Mexico to ensure that regional actions are directed toward common priorities, and that avoids duplication of effort. The successful Rio Grande and Sonoran Desert Joint Ventures will be used as models for developing these stakeholder processes, and will also be important partners as this effort moves forward.

North American Scope of the Project and its Relevance to the Parties

Mexican desert grasslands support the entire winter populations of many North American grassland bird species. This region is therefore important for grassland conservation efforts in Canada and the United States. In addition to the Joint Venture programs noted above, Pronatura, since 2006, in cooperation with The Nature Conservancy, the Rocky Mountain Bird Observatory (RMBO) and other organizations, has led a continental effort to develop and implement a wintering grassland bird survey and monitoring program in eight Grassland Priority Conservation Areas (GPCAs) in the Chihuahuan desert region of Mexico and across North America.²

As with any ecoregional approach, success in conserving grassland biodiversity will require a focused understanding of areas critical for conservation actions. The heterogeneity of the landscape makes certain areas more important than others based on the diversity of species present, the level of protection, the level of development and the likelihood of disturbance. Given limited resources, it is critical to understand where on the landscape these funds are best applied. This initiative will build on existing information and tri-national efforts to improve efficiencies and lower transaction costs in support of conservation efforts throughout the North American grasslands.

CEC Niche and Value Added

² See www.rmbo.org/v2/web/International/cdg.aspx.

As noted above, the grasslands are an integrated ecological region of significant trinational importance. Agricultural production from this region, moreover, is fundamental to the economies of all three countries. Growing interest in renewable energy development, including wind, solar, and biofuels, will likely result in economic growth and land-use change over the coming years.

The CEC is viewed by most as an objective broker, with considerable experience in convening diverse stakeholders to develop workable solutions for complex environmental problems of continental importance. A mosaic of actors exists within Canada, Mexico, and the US with direct interests in grasslands management, and complex resource management challenges and trade-offs in this region are abundant. The CEC is well placed to balance environmental and economic consideration within development paradigms, and identify sound, equitable solutions.

Activities and Outputs

Work described here concludes tasks initiated in June 2009, supplementing these tasks where necessary in order to draw this project to a logical conclusion in 2010.

Key Activities

1. Establish a Regional Alliance of organizations working together to meet shared conservation goals, including the development and peer-review of a regional conservation strategy or master plan. As part of this, convene a trinational meeting to finalize a strategy for working with local ranchers and farmers and other important stakeholders on land use practices that share/incorporate conservation objectives.
2. Support extended and improved monitoring of grasslands migratory birds.
3. Finalize and publish the (2009) list, and map data of priority conservation areas for North American Grasslands.

Target Groups

Target groups for this project are local landowners and resource managers in the grasslands states of northern Mexico, and including federal authorities.

Partners, Stakeholders

Partners in the implementation of this project include US and Canadian

government agencies, at both state and federal levels, with responsibilities for grasslands conservation. This initiative will also work closely with nongovernmental organizations involved in grasslands conservation in Mexico, including national and international NGOs and academic institutions involved in grasslands research, management and conservation.

Leveraging

This initiative is primarily intended to assist in the coordination of *ongoing* grasslands conservation efforts in the project focal areas. As such, numerous opportunities exist for leveraging CEC resources. These opportunities will be identified and subsequently developed once the initial planning work (outlined above) has been completed.

Outputs and Associated Timelines

Please refer to the Implementation Plan table below.

Anticipated Outcomes and Performance Indicators

1. Shared regional ecosystem management approaches and conservation Master Plan

Expected Direct Outcomes:

- A Regional Alliance with a steering group representing all relevant stakeholders, institutions and organizations, to develop a draft conservation strategy.

Performance Indicators:

- Consensus amongst key conservation actors on conservation goals and strategies;
- Drafting of formal terms of agreement encompassing these goals.

Intermediate to long-term performance indicators:

- Goals and priority actions addressed through the implementation of the RA's Master Plan;
- National and international funds available to address conservation goals;
- Improved coordination, communication and efficiency among stakeholders;
- Number of hectares under protection, management, enhancement or restoration.

2. Trinational coordination (in support of the above)

Expected Direct Outcome:

- Consensus reached with stakeholders on policy approaches that incorporate conservation practices.

Performance Indicator:

- Agreed conservation strategy vision and goals.

Intermediate to long-term performance indicators:

- Livestock and farming production levels maintained through land management practices that support biodiversity conservation;
- Number of producers that have been trained in the implementation of sustainable livestock operations; and
- Infrastructure and capacities in place to operate a seed bank for the production of seeds for grassland restoration purposes.

3. Improved monitoring of grasslands migratory birds

Expected Direct Outcome:

- Protocols of existing bird monitoring programs harmonized; ongoing monitoring efforts supported.

Performance Indicator:

- Monitoring protocols agreed to by the principle government, scientific, and nongovernmental organizations involved in the monitoring of grassland migratory bird populations.

Intermediate to long-term performance indicators:

Long-term monitoring has been implemented at the scale of the Chihuahuan Desert and there is available information to support management decision making, including:

- Annual distribution and abundance maps depicting the differential abundance of dozens of grassland species throughout their actual non-breeding range in the seven-state Chihuahuan desert region;
- Identification of reliable "hotspots" for priority grassland bird species, during both "normal" and drought conditions, for targeting future habitat conservation efforts;
- Species-specific density estimates for several levels of interest (e.g., states, habitats) to aid in managing bird populations at various scales;
- Insight into local and regional population trends of wintering

grassland birds to guide management and conservation efforts at various scales;

- A better understanding of habitat requirements of grassland species both locally and regionally;
- A regional network of cooperators in the seven state region of the Chihuahuan desert in Mexico that could also serve as a platform for other regional efforts related to bird conservation, such as monitoring of over-winter survival, monitoring of breeding species, and the breeding bird survey.

4. Priority conservation areas for North American Grasslands

Expected Direct Outcome:

- Complete the (2009) list and map data, including descriptions and metadata of key priority grasslands conservation areas in North America.

Performance Indicator:

- Publish map and include it in the North American Environmental Atlas.

Timetable, Project Completion and Sustainability

A timetable for the completion of outputs and project deliverables is provided in the table below.

Culminating Steps in Achievement of Program Objectives

The project will have contributed to improving understanding within North America of the conservation of grassland habitat and its associated species, and helped to improve capacity to address this issue.

Target End Date for CEC Involvement

Project tasks and activities are designed to ensure appropriate conclusion of the CEC's support of this initiative in 2010.

Sustainability Beyond 2010

This project supports the development of a Regional Alliance of organizations in northern Mexico with a direct interest in grasslands conservation, and the preparation of a shared conservation strategy during 2010. Once completed, and in the event of no further support from the CEC, it will be possible for the Alliance and its steering committee to move forward with its own action plan and resource allocation strategy to achieve the goals laid out in the strategy. Previous experience with the North American Bird Conservation Initiative (NABCI), which the CEC supported during the initial planning and development stages, suggests that this approach is both feasible and practical.

Future work in support or continuation of these or related activities will be considered in the development of the CEC's 2010–2015 Strategic Plan and subsequent project-level descriptions.

Communications

One communications product from this initiative within the 2010 program year is expected, specifically the publication of a map of priority conservation areas of the North American grasslands.

Information Management

The map of priority conservation areas will be available in both print and electronic versions. Once the quality review process is complete, map shape files and metadata will be available through download via the North American Environmental Atlas.

Implementation Plan

PROJECT 15 – Conserving North American Grasslands						
Objectives <ol style="list-style-type: none"> 1. Establish a Northern Mexico Regional Grassland Conservation Alliance (the Regional Alliance), including a shared conservation strategy; 2. Support comprehensive grassland bird monitoring and inventory programs; 3. Complete and publish the (2009) map of priority conservation areas for the North American grasslands. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
1. Establish a Regional Alliance of organizations working together to meet shared conservation goals. Develop and peer review regional conservation strategy or master plan.	Regional Alliance of key stakeholders established Scoping exercise completed and draft conservation strategy prepared Note – this is in completion of the 2009 task	Jan–Sept	Regional Alliance membership developed and agreement is reached to work towards cooperative approaches that meet shared conservation goals	State and federal land managers, environmental non-governmental organizations, private landowners	\$30,000	It is expected that once the Regional Alliance is established, including a shared strategy and goals, activities will be ongoing and sustained through other means beyond the CEC.
2. Convene a trilateral meeting to finalize strategy for working with local ranchers and farmers and other important stakeholders regarding land use practices that share/incorporate conservation objectives.	Consensus reached with stakeholders on policy approaches which incorporate conservation practices (Note – this is in completion of the 2009 task)	Jan–May	Land management practices that support biodiversity conservation promoted	Public and private land managers, including ranchers, farmers	\$40,000	
3. Support extended and improved monitoring of	Protocols of existing bird	Jan–Dec	A plan to develop a comprehensive	Federal/sub-federal wildlife agencies;	\$30,000	

PROJECT 15 – Conserving North American Grasslands						
Objectives <ol style="list-style-type: none"> 1. Establish a Northern Mexico Regional Grassland Conservation Alliance (the Regional Alliance), including a shared conservation strategy; 2. Support comprehensive grassland bird monitoring and inventory programs; 3. Complete and publish the (2009) map of priority conservation areas for the North American grasslands. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
<p>grasslands migratory birds.</p> <p>This task in 2009 expanded grassland habitat monitoring in Mexico. The current task will complete this work, and most importantly ensure that these data are accessible and integrated into monitoring efforts throughout North America.</p>	<p>monitoring programs harmonized</p> <p>Ongoing monitoring efforts supported</p>		<p>approach to for continental grasslands bird monitoring in place, developed in part through support from this initiative</p>	<p>environmental non-governmental orgs; academia, UMAs³ and volunteers</p>		
<p>4. Finalize and publish the list of priority conservation areas for North American Grasslands.</p> <p>This task in 2009 resulted in a revised geographic database of priority grassland habitat. The current task will complete this work, and ensure that these data are available beyond the conclusion of this project by Parties and other stakeholders.</p>	<p>Publish map and map data, including descriptions and metadata of key priority conservation areas in the North American Grasslands; translate.</p>	July–Dec	<p>Improved understanding of critical habitat for conservation in the North American Grasslands ecoregion</p>	<p>Project stakeholders, relevant government agencies in all three countries at federal and sub-federal levels, and the general public</p>	\$30,000	<p>No future activities planned.</p>
Total Cost: C\$130,000						

³ UMA—*Unidades de Manejo para la Conservación de la Vida Silvestre* (Wildlife Conservation Management Units)

PROJECT 15 – Conserving North American Grasslands						
Objectives <ol style="list-style-type: none"> 1. Establish a Northern Mexico Regional Grassland Conservation Alliance (the Regional Alliance), including a shared conservation strategy; 2. Support comprehensive grassland bird monitoring and inventory programs; 3. Complete and publish the (2009) map of priority conservation areas for the North American grasslands. 						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries	Budget (C\$)	Future Activities
Performance Measurement Indicators: <ul style="list-style-type: none"> • Consensus among key conservation actors on conservation goals and strategies; • Agreed vision and goal statement for conservation and sustainable land management in target areas, in conjunction with local ranchers and landowners; • Coordination and standardization of monitoring protocols for migratory birds; and • Publication of priority conservation areas map and inclusion in the North American Environmental Atlas. 						Key Partners: Conabio, Conanp, ⁴ CWS, Association of Fish and Wildlife Agencies, Sonora Joint Venture, Rio Grande Joint Venture, Arizona Game and Fish Dept., WWF, Pronatura, Rocky Mountain Bird Observatory

⁴ Conabio—*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (National Commission for the Knowledge and Use of Biodiversity); Conanp—*Comisión Nacional de Áreas Naturales Protegidas* (National Commission of Protected Natural Areas, Semarnat)

Project 16	New Strategic Initiatives	Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$600,000	Working Group(s) associated with this work

Objective of Project

The CEC Council has identified new strategic priorities for 2010–2015: Healthy Communities and Ecosystems, Climate Change—Low-Carbon Economy, and Greening the North American Economy. Pending completion of the Commission’s new five-year strategic plan in June 2010, this project will initiate a limited number of trilateral cooperative initiatives in support of these priorities, beginning as soon as possible in 2010. These initiatives will be identified as a consequence of the CEC strategic planning exercise beginning in January and February 2010. Although it is anticipated that each of the initiatives will have discrete 2010 objectives, they may also constitute first steps in a multi-year implementation of project activity in support of the CEC’s new Strategic Plan.

Background

Project History and Foundation

The initiatives to be developed are intended to support the CEC’s new strategic focus as articulated in the Council’s June 2009 Ministerial Statement.

Key Stakeholders, Resource Leveraging, Partnerships (to date)

At this stage the key stakeholders are the Parties to the NAAEC. The budget amounts described here are for project development and initiation. It is anticipated that the Parties will contribute in-kind resources in terms of expert participation. Leveraging of other resources and partnerships will be determined on a project-by-project basis

Advisory Groups Related to this Project

- To be determined based upon project/activity selection

Rationale

Fulfillment of Strategic Objectives

The initiatives to be developed according to this project are intended to support the Council’s new strategic priorities.

North American Scope of the Project and Its Relevance to the Three Parties

The cooperative activities to be developed will be identified as a consequence of the CEC’s strategic planning and scoping process to be initiated in January and February 2010. Government experts in this process will discuss national priorities and opportunities for trilateral collaboration. It is assumed that activities supported in these selected initiatives will focus on opportunities for North American cooperation.

CEC Niche and Value Added

The Parties are engaged in national, bilateral and multi-lateral activities in broad alignment with the Council’s new strategic priorities. Activities developed under this project, as other initiatives in support of the Council’s new strategic plan, should focus on areas and activities where trilateral, North American cooperation will add value to Party commitments and activity.

Linkages with Other CEC Projects

To be determined.

Activities and Outputs

To be developed with respect to each selected activity under this project

Anticipated Outcomes and Performance Indicators

To be developed with respect to each selected activity under this project

Timetable, Project Completion and Sustainability Beyond

It is anticipated that each of the initiatives will have discrete 2010 objectives. These initiatives may also constitute first steps in a multi-year implementation of project activity in support of the CEC's new Strategic Plan.

Communications

To be developed with respect to each selected activity under this project

Information Management

To be developed with respect to each selected activity under this project

Implementation Plan

PROJECT 16 – New Strategic Initiatives						
Objective – Support the Council’s new strategic priorities						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Initiatives under New Strategic Initiatives	Project initiatives to advance cooperative work in support of the Council’s 2010–2015 Strategic priorities: Healthy Communities and Ecosystems Climate Change-Low Carbon Economy Greening the Economy in North America	Commencing Spring 2010			600,000	To be determined pursuant to development of the CEC’s 2010–2015 Strategic Plan.
Total Cost: C\$600,000						
Performance Measurement Indicators: To be determined for each activity						Key Partners:

CEC Grants for Community-based Initiatives		Responsible Project Manager at the CEC Secretariat
Planned Allocation	C\$450,000	Working Group(s) associated with this work

Objective of Project

The proposed CEC grant program will fund community-based activities across North America which support the strategic priorities proposed by the Council in June 2009.

The grant program will start with a pilot stage during which it will support a limited number of initiatives as identified by the Parties in an effort to complement/complete work undertaken through the CEC cooperative work plan. Pending a performance evaluation this program will be further developed in consideration of the CEC's 2010–2015 Strategic Plan and implemented as part of subsequent operational plans.

Funding criteria guiding this program include: alignment with Operational Plan objectives; community-based focus; capacity strengthening of the local peoples and institutions; project-level management, and leveraging additional financial support. The CEC will fund projects that not only have concrete results at the local level but also have an impact on a wider scale. It will seek innovative and replicable projects with outcomes that can be shared throughout North America, as well as projects that explore the relationship between government policy and community-based efforts to address environmental issues. These criteria will be revisited as part of the evaluation of pilot stage.

Background

Project History and Foundation

The funding criteria are modelled on past CEC work and experience administering the 1995–2003 North American Fund for Environmental

Cooperation (NAFEC).

NAFEC was a funding source for community-based environmental projects in Canada, Mexico, and the United States created in 1995 through Council Resolution 95-09, which recognized the important role played by community groups in protecting the North American environment. Grants were awarded to community-based projects that complemented the work of the CEC and promoted the goals and objectives of the North American Agreement on Environmental Cooperation. NAFEC was closed in 2003.

Advisory Groups Related to this Project

- Selection Committee (to be determined as part of the evaluation of pilot stage).

Rationale

This initiative provides an immediate opportunity for Council-led action to support specific community-based environmental activities on issues of local and regional concern. As such it also provides a ready platform to communicate the continent-wide relevance of associated CEC program activity. In particular, it provides concrete examples of progress in support of Council's strategic priorities.

CEC Niche and Value Added

The proposed grant program will provide a funding source for community-based environmental initiatives that are relevant to North America. Moreover, the program will strive to link grassroots efforts with the work of a trilateral organization by providing a platform for collaboration and mutual benefits.

Linkages with Other CEC Projects

This program is intended to complement work undertaken through the CEC cooperative work plan.

Activities and Outputs

Key Activities

- Identify grant recipients for pilot stage;
- Initiate grant process;
- Announce grants;
- Initiate pilot project evaluation;
- Develop next grant cycle.

Target Groups

Grant recipients will be nongovernmental, not-for-profit, community-based organizations.

Partners, Stakeholders

The management of the grant program will involve a Selection Committee, CEC Secretariat staff and, if needed, technical advisors. During the pilot stage, the Parties will identify and recommend grant recipients. CEC program staff will manage the funding process and will monitor the grants.

The creation of a stand-alone Selection Committee as well as the need for a grant manager staff position will be considered during the evaluation of the pilot stage. The Selection Committee could consist of members to be appointed by the Parties, including representatives from among respective Working Group members, National Advisory Committee (NAC), Governmental Advisory Committee (GAC), or from amongst their respective citizens. It may also be effective to delegate the CEC's Joint Public Advisory Committee (JPAC) to support the selection process. Each Party will be represented by an equal number of members in the Selection Committee.

The CEC will also seek, if the program is further developed, to partner with public and private foundations to increase the efficiency of such a program and build synergies.

Anticipated Outcomes and Performance Indicators

The CEC Council in 2007 recommended development of selection criteria and performance accountability to ensure strong project outcomes and enhance the relevance of the CEC to local communities.

The expected general outcomes of the grant program are:

- Increased capacity at the community level to address specific environmental issues;
- Community groups that become more directly engaged in promoting the goals and objectives of the CEC; and
- A public constituency that informs policy-level programming at the CEC.

Direct outcomes and performance indicators will be specific to the individual projects funded through this program.

The pilot stage of the proposed grant program will be evaluated in consultation with the Parties. Success will be determined based on the performance of funded projects as expressed in grantee reports and as noted during field visits by CEC staff.

Timetable, Project Completion and Sustainability Beyond

This program will begin early 2010 with a pilot grant cycle of one year. A review and assessment of CEC financial capacity to continue with such an initiative will be conducted at the end of 2010. If the program is to be continued beyond that date, it could include grant cycles in line with the proposed multi-year project approach under future operational plans.

Communications

Grants will be announced at the Council Regular Session in June 2010. A press release will also be made available to the general public. Grant information will be posted on the CEC website. In addition to such activity on the part of the Commission, the Secretariat will work with grantees to support communication of grant-related activity in appropriate community-based media to reinforce public understanding of the mutual efforts of the CEC and the grantees, and to enhance transparency.

Implementation Plan

CEC Grants for Community-based Initiatives						
Objective: Fund community-based activities across North America which support the strategic priorities proposed by the Council in June 2009, in particular <i>Healthy Communities and Ecosystems</i> .						
2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Identify grant recipients for pilot stage	Grant list for 2010	Jan. 2010	Grant recipients identified by the Parties.	nongovernmental, not-for-profit, community-based organizations	0	NA
2. Initiate grant process	Funding agreements	February 2010	Funding agreements prepared and signed; Reporting and payment schedule established	nongovernmental, not-for-profit, community-based organizations	400,000 (grants)	NA
3. Begin pilot projects	NA	March 2010	Project monitoring conducted by CEC Secretariat staff.	nongovernmental, not-for-profit, community-based organizations	19,000 (conference calls, field trips, translation of web material, etc.)	NA
4. Announce grants	News release (general and local)	June 2010	Council announcement	nongovernmental, not-for-profit, community-based organizations	1,000 (translation)	NA
5. Conduct pilot project evaluation	Evaluation report	Sept.-Oct. 2010	Decision regarding program continuation and support for the CEC's new Strategic Plan.	CEC	15,000 (consultant)	Periodic evaluation of the grant program, if continued beyond 2010.
6. Develop next grant cycle in	Funding and grant design guidelines,	Oct.-Dec. 2010	Guidelines developed for subsequent grant cycle.	nongovernmental, not-for-profit, community-	15,000 (consultant)	Subsequent grant cycles, if agreed

CEC Grants for Community-based Initiatives

Objective: Fund community-based activities across North America which support the strategic priorities proposed by the Council in June 2009, in particular *Healthy Communities and Ecosystems*.

2010 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
consultation with the Parties, JPAC and other stakeholders (<i>pending decision to continue the program</i>)	including identification of optimal grant amount.		Selection Committee created	based organizations		
7. Finish pilot projects	Specific to individual grants	Dec. 2010 – March 2011 <i>(Note: Project finalization will overlap with the evaluation process.)</i>	Direct outcomes and performance indicators will be specific to the individual projects funded through this program.	nongovernmental, not-for-profit, community-based organizations	0	NA
Total Cost: C\$450,000						
Performance Measurement Indicators: Performance indicators will be specific to the individual projects funded through this program						Key Partners: TBD

Appendix B: Puebla Declaration and 2009 CEC Ministerial Statement

Puebla Declaration

Eleventh Regular Session of the CEC Council

Puebla, Mexico, 23 June 2004—We, the environment ministers of Canada, Mexico and the United States, members of the Council of the Commission for Environmental Cooperation (CEC or “the Commission”), met for our annual regular session on 22 and 23 June 2004.

The year 2004 marks the tenth anniversary of the North American Agreement on Environmental Cooperation (NAAEC) and the North American Free Trade Agreement and is an occasion to assess our work. We see this as an opportunity to review our progress, re-affirm our commitment to the CEC, and set directions for the future. The report of the independent Ten-year Review and Assessment Committee has provided an important basis for our deliberations.

Looking forward, our vision of the CEC is of an organization that is a catalyst for action by the Parties and others to ensure our air is cleaner, our water purer, and our plant and animal species better conserved and protected, as our countries’ economic relationship grows. We also see the organization as a forum through which we can discuss and facilitate regional action on our common global commitments. Over the next ten years we want the CEC to be known for concrete results and for quality information and analysis, which have policy relevance to the three countries.

We recognize the value of the CEC’s work on environment, economy and trade; biodiversity conservation; pollutants and health; and law and policy. Looking forward, we commit to grounding the CEC’s work program, starting in 2005, in results-oriented strategic plans for three priorities: information for decision-making, capacity building, and trade and environment. These are priorities that the CEC is uniquely positioned to help the three countries address together—and separately—for the benefit of North America.

We want the CEC to be an organization recognized for its credible, balanced and timely information on the North American environment, and want to ensure that this information is available and accessible to all interested parties in order to provide governments, the private sector, and citizens alike with information to address the key environmental challenges and opportunities facing the region. We support strengthening the CEC’s information-gathering activities, databases, and communications, and making linkages with other information systems, such as the Global Earth Observation System of Systems.

In developing the strategic plan for information, we will build a knowledge base related to contaminants, the integrity of our ecosystems, and our ability to ensure environmental security at our borders. We will focus on information that is key to providing answers regarding the state of our North American environment, and will develop and use information technologies that will help us access and share this information.

We recognize the different capacities of the Parties and the continuing, urgent need to focus on institutional capacity building in order to sustain targeted results. We acknowledge that this is especially important for Mexico, and want the CEC to assist those concerned in the three countries—governments, the private sector, environmental organizations, academia, indigenous

and local communities, and others—in gradually strengthening the capacity for sound environmental management across North America.

In developing a capacity-building strategic plan, we will focus on priorities such as our abilities to assess and manage chemicals of concern, undertake pollution prevention, participate in biodiversity conservation, and improve our enforcement efforts.

We want to build on the CEC's recognized expertise on trade and environmental linkages, and to address specific trade and environmental issues more effectively. We will enhance the positive working relationship that has been developed with our trade counterparts to ensure trade and environment policies are mutually supportive. We will continue our work with the NAFTA Free Trade Commission, under the Article 10(6) Working Group, to develop a strategic plan on trade and environment.

As we work to develop the plan, we will consider, among other priorities, areas which could include: establishing key elements to enhance markets for renewable energy; addressing issues related to trade pathways for invasive species; trade and enforcement of environmental laws, including enforcement of domestic laws that address transboundary trade in environmentally sensitive goods and materials; environmental procurement practices; market-based approaches to connect North American ecoregions; and sharing, as appropriate, information on methodologies for conducting environmental reviews of trade agreements with a view to better assessing the environmental effects of NAFTA.

The NAAEC and the CEC have been a bold ten-year initiative in building a continental framework for trilateral environmental cooperation within the context of increasing trade and economic ties amongst our three countries. We recognize the significant progress accomplished and the invaluable contribution of the Secretariat and the Joint Public Advisory Committee (JPAC), as well as the efforts of the CEC's working groups. We know it is critical to streamline the work of the CEC and to focus our work on generating concrete, measurable results that will make a difference to the environment in North America. We recognize that there will be a transition period as we adjust the work program and apply new approaches to achieve our goals.

While we are focusing on the CEC's work around three main themes, it is also important to identify and keep abreast of emerging issues, particularly those with special relevance for North America. We continue to support the CEC's Article 13 work to identify emerging issues, and to provide recommendations to the Parties for addressing these issues.

We continue to be supportive of the process for submissions on enforcement matters, and commit to exploring ways for each Party to communicate how matters raised in factual records may be addressed over time.

As we move to the next ten years in the life of the CEC, we look to a skilled Secretariat to help us achieve our vision for the organization. We are committed to strengthening the relationship amongst all parts of the CEC—the Council, the Secretariat and JPAC. We seek to grow the constituencies engaged in the work of the CEC by including a broad and balanced spectrum of other levels of government, including local governments, environmental groups, academics, the private sector, indigenous and local communities, civil society, and others. We envision a strong role for the CEC in promoting partnerships across this spectrum. We will continue to place great value on advice from JPAC, which reflects the diversity and innovative views of its members.

We have important work ahead, and we are confident that our strong commitment to the CEC will contribute to a cleaner, healthier, and more sustainable North American environment for future generations.

Appendix C: CEC Strategic Plan 2005–2010

Looking to the future

Our mission

To facilitate cooperation and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, Mexico and the United States.

*Strategic Plan of the
Commission for Environmental Cooperation
2005–2010*

17 June 2005

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Appendices

- NAAEC objectives (Article 1)
- Puebla Declaration

1. The North American Agreement on Environmental Cooperation

In North America, more than 425 million people share a rich environmental heritage, ranging from tropical rain forests to arctic tundra and including deserts and wetlands, oceans and rivers, prairies and mountains. Together, these natural resources form a complex network of ecosystems that support a unique biodiversity as well as sustain our well-being and livelihoods. Since 1994, Canada, Mexico and the United States have collaborated in protecting North America's environment through the North American Agreement on Environmental Cooperation (NAAEC).

The NAAEC came into force at the same time as the North American Free Trade Agreement (NAFTA). In the same manner that NAFTA sought to dismantle barriers to trade and investment, the NAAEC seeks to build bridges among the three countries to promote environmental collaboration. Together, the environmental provisions of both agreements mark the determination of our three countries that economic growth and liberalization of trade would be accompanied by cooperation and continuous improvement in the environmental performance of each country.

More specifically, the NAAEC is intended to address potential trade-related environmental concerns, promote environmental cooperation in the region and support the effective enforcement of environmental law. The NAAEC was the first international agreement to link environmental cooperation with trade relations and the first to embed public engagement at the heart of its operations.

In addition to reinforcing the national obligations of each country to protect its own environment, the NAAEC establishes the Commission for Environmental Cooperation (CEC) to facilitate effective cooperation on the conservation, protection, and enhancement of the North American environment. The CEC partnership is unique. Through the CEC, the governments of Canada, Mexico and the United States and North American civil society work together to pursue what none of the three countries could achieve on its own.

The NAAEC describes in broad terms a number of areas of work for the CEC, including:

- a program of cooperative activities on a wide range of environmental issues (Article 10);
- the processing of submissions on enforcement of environmental laws, including factual records when warranted (Articles 14 and 15);
- reports on environmental issues of regional importance (Article 13), and periodic assessment of the state of the North American environment (Article 2); and
- the analysis of NAFTA's environmental effects and the resolution of environmental trade disputes (Article 10(6)).

2. Who we are

The CEC accomplishes its work through the combined efforts of its three principal institutions:

- The *Council*, composed of cabinet-level environment officials from the three countries, is the CEC's governing body. The Council meets once a year and is responsible for setting the CEC's overall direction, including its budget, and monitoring the progress of its projects against their objectives;
- The executive director of the *Secretariat*, in accordance with direction from the Council, submits for approval of the Council the annual program and budget of the Commission, including provision for proposed cooperative activities and for the Secretariat to respond to contingencies. The Secretariat provides administrative, technical and operational support to the Council, and other support as the Council may direct. It also has special responsibilities in the Submissions on Enforcement Matters (SEM) Process and the preparation of reports under Article 13; and

- The *Joint Public Advisory Committee* (JPAC), composed of fifteen citizens (five from each country), advises the Council on any matter within the NAAEC's scope and serves as a source of information for the Secretariat. JPAC's vision is to promote continental cooperation in ecosystem protection and sustainable economic development, and to ensure active public participation and transparency in the actions of the Commission.

In addition, both Canada and the United States have created National Advisory Committees and the United States has also established a Governmental Advisory Committee. These committees provide general and specific advice to their governments on NAAEC's implementation and the CEC's operations. In Canada, decisions regarding CEC matters are coordinated through a Governmental Committee headed by the federal environment minister and the environment ministers of those provinces who have signed the Canadian Intergovernmental Agreement (CIA), an agreement that was negotiated with the provinces and territories to create a mechanism to provide for their participation in the NAAEC. Signatory provinces include Alberta, Manitoba and Quebec. These provinces assume the obligations set out in the NAAEC, in accordance with their respective jurisdictions, and have a key role in Canada's ongoing management and implementation of the Agreement.

The Council will continue to rely on advice and guidance of government officials, any Council-established groups or committees, and others to advance the priorities described in this Strategic Plan.

The Council recognizes that the existing working groups* continue to contribute significantly to the CEC work and it is clear their assistance will be needed in this transition period in which the Council should define the future of these working groups in order to have compliance with the Strategic Plan.

The CEC Council operates on the basis of consensus, with the exception of specific instances where majority votes are called for, such as in connection with citizen submissions or Article 13 reports.

The CEC's institutions rely on the following principles in guiding their partnership:

- Flexibility and mutual support
- Openness and transparency
- Accountability

The CEC budget is US\$9 million a year, contributed equally by the three Parties. This sum is complemented with staff time and expertise contributed by each of the Parties as well as resources contributed by the CEC's partners in the completion of specific projects.

3. Our first decade

The CEC celebrated its tenth anniversary in 2004. An independent ten-year review emphasized the valuable contribution that the CEC had made and pointed to several notable achievements. It found that, over its first decade, the CEC has:

- helped create a North American environmental community that provides the moral and scientific authority for the three governments to address issues of continental importance.
- achieved substantial results on key North American issues such as chemicals management and set the basis for progress on the conservation of continental biodiversity.

* As of June 2005, the Council-established working groups which have been created prior to this Strategic Plan are: the North American Working Group on the Sound Management of Chemicals; the Biodiversity Conservation Working Group; the North American Working Group on Environmental Enforcement and Compliance Cooperation; the North American Air Working Group; and Environment and Trade Officials Working Group.

- built substantial environmental capacities, largely in Mexico but also in the United States and Canada.
- advanced our understanding of trade-environment linkages and has provided useful information on the North American environment to a range of audiences.
- successfully promoted citizen engagement on environmental issues and increased government accountability regarding the enforcement of environmental laws.

We have learned a great deal from our work over the course of our first decade. The CEC's efforts in assembling and analyzing environmental information on a North American scale continues to bring new attention and understanding to critical issues facing all three countries. Our successful collaboration on protecting biodiversity and managing toxic chemicals demonstrates that common approaches are effective in addressing shared problems. We also know that the CEC, working with partners, needs to invest more systematically in strengthening North American environmental management capacities. We have determined that freer trade and a healthy environment can be mutually supporting, provided countries establish and enforce appropriate environmental laws and policy. Civil society's contribution to our work reaffirms the imperative of public participation in environmental management.

We have also learned that stronger results will come from more focused and concerted action. The CEC has thus narrowed its priorities and streamlined its work program to address those critical matters on which the CEC can make a real difference. This strategic plan presents what the CEC wants to achieve over the course of the next five years and how it plans to do so. It also clarifies the roles of the CEC's bodies regarding that program.

4. A vision for the future

In June 2004, Canada, the United States and Mexico signed the *Puebla Declaration*, which sets out the Parties' vision for the CEC for the next decade, a vision of:

... an organization that is a catalyst for action by the Parties and others to ensure our air is cleaner, our water purer, and our plant and animal species better conserved and protected, as our countries' economic relationship grows. We also see the organization as a forum through which we can discuss and facilitate regional action on our common global commitments. Over the next ten years, we want the CEC to be known for concrete results and for quality information and analysis, which have policy-relevance to the three countries.

The Puebla Declaration emphasizes several important attributes that the CEC will pursue over the course of the next decade:

- *The CEC as a catalyst:* as a small organization with a broad mandate, the CEC needs to work in partnership with various levels of government and stakeholders. Its role is to encourage and facilitate action by the Parties and by stakeholders through its work.
- *The CEC as a forum to facilitate regional action:* the CEC focuses on issues that are regional in scope and a high priority for each Party. Canada, Mexico and the United States face many common environmental issues and, in some cases, have made the same international commitments. The CEC can help the three countries coordinate their national approaches to these issues, leading to more effective action.

- *The CEC as a producer of concrete results:* the CEC will provide timely and policy-relevant recommendations to achieve concrete results in the areas that the Council defines.
- *The CEC as a provider of scientifically rigorous information:* the CEC will foster the greater comparability, compatibility and accessibility of high-quality information at a North American scale to support environmentally suitable decisions based on sound science.

5. Priorities for the cooperative program

The CEC's cooperative program directly engages the three countries in a united effort to contribute to protecting the North American environment. This program promotes and facilitates cooperation among the Parties and provides the tools and information to allow citizens, governments and industry alike to protect our common environment better as our continental economy grows. The Parties have chosen three broad priorities for the CEC's cooperative program over the next five years. These are:

1. *Information for decision-making*
2. *Capacity building*
3. *Trade and the environment*

To advance our three priorities, Canada, Mexico and the United States have embraced specific five-year goals and objectives, and formulated long-term cooperative initiatives to meet them. Building on the CEC's experience to date, these initiatives comprise a focused, integrated and coherent effort to produce visible and concrete results. While individual projects in the CEC's cooperative program may change from year to year, the objectives will remain the same for the life of this strategic plan. Underpinning our agenda is a quality assurance framework that supports the credibility of CEC information products and services and the integrity of its processes.

We intend to pursue these mutually supporting priorities as a comprehensive effort. Capacity building is a built-in feature in projects under all three priorities; information projects will also contribute to the achievement of the trade and the environment objectives. We will design and manage the various projects under the priorities so as to strengthen these relationships.

5.1 Information for decision-making

"We want the CEC to be an organization recognized for its credible, balanced and timely information on the North American environment, and want to ensure that this information is available and accessible to all interested parties."

Puebla Declaration

To resolve environmental problems that are North American in scope, decision-makers at all levels in all three countries need the best information in order to set objectives, implement solutions and monitor the effectiveness of their choices.

To help manage cross-boundary issues, the CEC will work to increase the comparability, reliability and compatibility of national and subregional information. The CEC has already begun to develop and link multinational databases and information networks in such areas as pollutant releases, ecological integrity,

and trade-environment relationships. The CEC will continue this work and will also develop common standards and methodologies to integrate various information-related activities and reporting mechanisms being used in North America. The CEC will continue to ensure that its science and information products are of high quality. As well, the CEC will build on national efforts by focusing on trans-border issues that the Council has identified as priority concerns.

The CEC's long-term **goal** for this priority is to support better decision-making by providing information on the key environmental challenges and opportunities facing North America.

Specifically, over the next five years, the CEC's information **objectives** are to:

- Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern.
- Establish an environmental information and knowledge framework for North America.
- Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues.
- Make environmental information more widely available to facilitate local, national and regional action.

The CEC will pursue these objectives through several mutually-reinforcing **initiatives**:

- the development of an information systems strategy including the development and application of a quality assurance framework;
- the development over time of an online North American environmental atlas depicting environmental protection, conservation, biodiversity and other information on a continental scale;
- the continued synthesis of North American air emissions and monitoring information;
- the annual publication of *Taking Stock*, the CEC's well-known report on North American pollutant releases and transfers, including more thorough integration and comparison of Mexican information;
- the improvement of monitoring information on persistent toxic substances in the North American environment; and
- the periodic publication of state of the environment reports and indicators, based in large part on the preceding work.

The CEC will focus initially on the theme of air quality, building from the momentum of recent and current work. Over time, these initiatives, taken together, will enable the Parties and others to make increasingly better-informed decisions on a variety of other North American environmental concerns, including invasive species, toxic substances and wildlife conservation.

5.2 Capacity building

“We recognize the different capacities of the Parties and the continuing, urgent need to focus on institutional capacity building in order to ... gradually strengthen the capacity for sound environmental management across North America.”

Puebla Declaration

Since its early days, the CEC has played an important role in strengthening the capacity of government, industry and civil society for sound environmental decision-making across North America. It has done this through initiatives whose primary purpose has been to foster progress in shared concerns such as the sound management of chemicals, pollution prevention, conservation of biodiversity, and the coordination of pollutant release and transfer registries.

Still, there is need to develop stronger institutions and to share environmental knowledge with a wider range of stakeholders in society. In this vein, the Parties aim to:

- develop model approaches that can be adapted to other settings;
- focus on improving compliance with existing environmental laws;
- emphasize institutions rather than individuals;
- address both environmental conservation and protection issues;
- work with the private sector and communities, as well as with government; and
- identify practical, short-term targets but in the context of a long-term perspective.

Specifically, the CEC’s **goal** is to strengthen the capacities of the three countries to manage environmental issues of common concern. Its **objectives** over the next five years—focusing on Mexico—are to cooperate to:

1. Strengthen capacities, where needed, to improve compliance with wildlife laws.
2. Improve private sector environmental performance through model environmental compliance approaches.
3. Strengthen capacities to conserve species and habitat of common concern by, among others, creating capacity building for planning, monitoring and management, with the participation of all relevant stakeholders.
4. Strengthen the Parties’ abilities to assess and manage chemicals of concern.

As a first step, Mexico will formulate an assessment of its environmental management capacity needs, priorities, and opportunities for cooperation in North America.

For its part, the CEC will pursue the objectives through three multi-year **initiatives** in Mexico:

- training for wildlife enforcement officers and other stakeholders, as appropriate;
- the promotion of better environmental management in selected industries and regions; and

- the development of processes to secure ecological integrity and promote ecosystem and species management.

While these initiatives focus mostly on Mexico, they will benefit all three countries: more effective Mexican enforcement of its wildlife laws, for example, will help protect migratory species that the three countries share; for their part, Mexican pollution prevention projects will reduce the risk that toxic substances pose to all three countries. The CEC's Clean Electronics Pollution Prevention Partnership will involve and benefit all three countries.

5.3 Trade and the environment

"We want to build on the CEC's recognized expertise on trade and the environmental linkages, and to address specific trade and environmental issues more effectively."

Puebla Declaration

Promoting a better understanding of trade and environment relationships is one of the main reasons the CEC was established. Since its creation, the CEC has developed methodologies to analyze these relationships and has acquired expertise in this area. The CEC has also helped to build positive links between environmental goals and trade. For example, the CEC's assistance to coffee growers in establishing a North American market for shade-grown coffee—a practice that conserves critical species habitat—is an example of harnessing the power of markets to facilitate sustainable development and trade.

As the North American economy becomes increasingly integrated, there continues to be a need to anticipate and address environmental concerns associated with increased trade, such as the spread of harmful exotic species, and to decouple economic growth from negative environmental impacts.

The CEC's goal is to promote policies and actions that provide mutual benefits for the environment, trade, and the economy. Its objectives are to:

- Enhance North American trade in green products and services, with a view to improving environmental protection, promoting sustainable use of biodiversity, removing trade barriers and utilizing market-based approaches.
- Increase the capacity of the three countries to identify and address trade-related environmental concerns to achieve mutual benefits for trade and the environment and improve collaboration among the three countries in these areas.
- Broaden understanding of trade and environment linkages and thereby promote policy coherence, both at the domestic and regional levels in North America.
- Improve regional and national coordination, including coordination between the CEC and NAFTA Free Trade Commission through ongoing collaboration of trade and environment officials.

To meet these objectives, the CEC will undertake the following **initiatives** over the next five years. It will:

- Continue documenting the environmental effects of trade liberalization in North America; improve the capacity of the CEC and the Parties to analyze and understand NAFTA's environmental effects; and support informal exchanges between Canada and the United States and with Mexico as appropriate, on methodologies for conducting environmental reviews of trade agreements, with a view to using such methodologies to better assess the environmental effects of NAFTA.
- Promote the North American renewable energy market.
- Promote North American markets for green products and services.
- Promote and facilitate training, compliance assistance and enforcement to expedite and facilitate the movement of legal materials while stopping shipments of illegal materials that could present threats to human health or the environment.
- Reduce the environmental and economic harm caused by Invasive Alien Species (IAS) through the development of guidelines for the three countries to use when conducting risk assessments of both pathways for IAS and high-risk species and through other cooperation aimed at the prevention, detection, and eradication of IAS.
- Promote better use of market-based approaches to support environmental protection, conservation, and the sustainable use of biodiversity.

5.4 Other projects

In addition to the initiatives described above, the CEC will continue its highly successful collaboration on the sound management of chemicals, focusing on the control of specific toxic chemicals and the strengthening of North American capacity for environmental monitoring.

The CEC will complete a number of existing projects in 2005. These include various biodiversity-related activities, work on disclosure of environmental information, and work on children's health and the environment.

Efforts to forge partnerships with other institutions are producing results. For example, the CEC is collaborating with the World Bank to assist Mexico in implementing the Stockholm Convention on Persistent Organic Pollutants (POPs). As well, the World Bank and the Parties are providing financial support to the CEC's monitoring of POPs and heavy metals in maternal cord blood.

6. Evaluating progress

The CEC's monitoring, evaluation and reporting framework provides specific and timely information to measure progress in each of the priorities outlined above. The CEC Council will continue to meet annually to review progress and take corrective action, if required. The results of the work accomplished will be tracked on the basis of project indicators and regular project evaluations. Such tracking will be facilitated by CEC initiatives meeting the test of being SMART: Specific, Measurable, Achievable, Realistic and Time-bound. These characteristics not only make measuring progress easier, but also support better-informed decisions regarding priorities, program management and budget allocation.

7. Citizen submission process

Under Articles 14 and 15 of the NAAEC, the Submissions on Enforcement Matters (SEM) process allows any person or nongovernmental organization (NGO) residing in North America to make a submission to the CEC asserting that a partner country is failing to effectively enforce its environmental laws. A submission can trigger an investigation by the CEC Secretariat, with Council's approval, and the publication of a factual record. This process contributes in important ways to greater transparency, accountability and environmental protection. The CEC will continue to process citizen submissions in an

objective, rigorous and transparent manner and will prepare factual records where warranted. As stated in the *Puebla Declaration*, the CEC Council commits “to exploring ways for each Party to communicate how matters raised in factual records may be addressed over time.”

8. Public participation

Public participation is one of the keys to the CEC’s success. More so than any other trade-related international organization, the CEC encourages the public to be involved in its activities. Over the next five years, the CEC will seek to increase the involvement of the constituencies engaged in its work by engaging a broad and balanced spectrum of other levels of government, environmental groups, academics, the private sector, indigenous and local communities, civil society and others.

The Joint Public Advisory Committee will continue to play a key role in promoting active public participation and greater transparency in the actions of the Commission.

APPENDIX

NAAEC Objectives

Article 1: Objectives

The objectives of this Agreement are to:

- (a) foster the protection and improvement of the environment in the territories of the Parties for the well-being of present and future generations;
- (b) promote sustainable development based on cooperation and mutually supportive environmental and economic policies;
- (c) increase cooperation between the Parties to better conserve, protect, and enhance the environment, including wild flora and fauna;
- (d) support the environmental goals and objectives of the NAFTA;
- (e) avoid creating trade distortions or new trade barriers;
- (f) strengthen cooperation on the development and improvement of environmental laws, regulations, procedures, policies and practices;
- (g) enhance compliance with, and enforcement of, environmental laws and regulations;
- (h) promote transparency and public participation in the development of environmental laws, regulations and policies;
- (i) promote economically efficient and effective environmental measures; and
- (j) promote pollution prevention policies and practices.