

Project 1	Reporting on the State of the North American Environment	Responsible Project Manager at the CEC Secretariat	Cody Rice
Planned Allocation	C\$160,000	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 appraisal of North American environmental conditions in order to inform the Council's deliberations on strategic planning and cooperative activities of the CEC and the Parties. This project will produce a briefing book describing major environmental topics for the 2008 Council Session. Subsequent project activities will identify opportunities for environmental cooperation among the Parties for further discussion at the 2009 Council Session. Information gathered over the course of this project will help direct the development of the 2010–2015 CEC Strategic Plan.

Background

The NAAEC 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 the main issues, and provided a comprehensive snapshot 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 reporting and indicators activities, although these have been much more limited in thematic reach than *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/>>.

Based on commitments in 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 reporting 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, CEC convened a scoping meeting of national SOE reporting experts from Environment Canada, Semarnat, and the US EPA to establish parameters for this project. This meeting led to a proposal for reporting on the state of the North American environment that is reflected in this project description. 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/files/PDF/COUNCIL/Res-07-14-SOE_en.pdf>.

The CEC has assembled a State of the Environment Advisory Group (SOEAG), composed of designated representatives from the environmental reporting programs of Environment Canada, Semarnat, and the US EPA, to provide advice to the CEC regarding the principles, audiences, scope, format,

process, content, and quality of information of the reporting activity.

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. This project addresses this goal by developing summary-level information describing the state of the North American environment in selected thematic areas. This project is primarily aimed at informing the Council’s deliberations on cooperative activities through the annual work program of the CEC and the next iteration of the Strategic Plan. Although not tasked for 2008, this project may further support the Capacity Building priority through the development of North American environmental indicators in future years.

Activities and Outputs

This project will produce a briefing book on the state of the North American environment in 2008. With Council approval, follow-up work is expected to support the development of consensus on challenges and opportunities for cooperation and the development of common environmental indicators.

The following activities are planned in 2008:

- January meeting of SOEAG to review and edit briefing papers;
- completion of briefing papers, including expert review, Party clearance, translation, layout, and printing;
- presentation of briefing papers to Council in June;
- obtain Council feedback and direction based on briefing book;
- post–Council Session meeting of SOEAG to de-brief and plan next phase to characterize “challenges and opportunities;” and
- post–Council Session activities related to defining “challenges and opportunities” in thematic areas/environmental topics.

These activities and associated products are expected to be useful for the Council and the Parties in preparing for the 2010–2015 CEC Strategic Plan and to inform priority-setting for the cooperative work program. Completion of the briefing book and any future activities will involve close collaboration

and direct involvement of environmental reporting experts designated by the Parties.

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

- Designated Party experts and the CEC Secretariat coordinate to share knowledge and develop understanding of SOE reporting at the North American level, and to implement this project effectively.
- Briefing book is delivered on time for the 2008 Council Session.
- Consensus is achieved on next steps for developing information on “challenges and opportunities” for each environmental topic.

Intermediate Outcomes:

- Briefing book is concise, clear, North American in scope, and adds value to national SOE reporting.
- Briefing book is suitable for obtaining feedback from public and stakeholders.

Final Outcomes:

- Shared understanding of continent-wide environmental issues.
- Improved articulation of strategic vision, annual work planning, and assignment of responsibilities for CEC and Parties.

Performance Indicators:

- On-time delivery of briefing book; and
- Briefing book stimulates an informed discussion of North American environmental topics and potential areas of cooperation among the Parties, and is a valuable asset in the development of the 2010–2015 CEC Strategic Plan.

Timetable and Project Sustainability

The timeframe for this project and schedule of activities are designed to support the development of the next CEC strategic plan to follow the existing 2005–2010 plan.

In terms of additional work over the next two to three years, it will be important for the CEC and the Parties to: 1) design a process for identifying “challenges and opportunities” related to the environmental topics addressed in the briefing book, 2) determine a schedule for updating the briefing book, and 3) identify opportunities to use the briefing book framework for other informational activities such as indicator development. The expectation is that an effective briefing book product will lead to better planning of cooperative activities.

Regardless of CEC work in this area, it is likely that 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. Also uncertain is what planning framework would be used to identify strategic environmental priorities and avoid duplication of effort with work being undertaken elsewhere.

Communications

The target audience is the Council and the method of delivery will be determined in cooperation with the Parties as part of the planning for the 2008 Council Session. It is expected that the briefing book product will also be made available to the general public via the CEC website and the distribution of print versions.

Information Management

A substantial portion of the information management requirements for this activity relates to the need to track, manage, and respond to comments on the briefing papers. This need will be met with the shared review features of Adobe Acrobat.

Another part of the information management requirements relates to maintaining a complete set of references for the briefing papers. Consultants will be required to generate endnotes in a standard format, with URLs provided, if available.

A webpage within <cec.org> will also need to be designed to host the briefing book.

Implementation Plan

PROJECT 1 – Reporting on the State of the North American Environment						
Objective – Provide an objective, scientific appraisal of current environmental conditions, in support of North American decision-making						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Coordination with SOEAG	Monthly conference calls	Jan–Dec	Advice and collaboration among designated Party experts and CEC Secretariat	CEC, SOEAG	\$10,000	Expected to continue for duration of project
2. Complete papers on topics to be addressed by briefing book ▪ Collaborative editing and formatting of draft briefing papers ▪ Party review ▪ Translation ▪ Present briefing book to Council	Briefing book organized by 4–5 thematic areas, each with 3–5 topics. For each topic, the briefing book will contain a briefing paper of up to 2000 words in length Note that papers will summarize current knowledge on each selected topic, but will not address potential responses or recommend cooperative activities	Jan–June	Briefing book will stimulate and facilitate an informed discussion of North American environmental topics and potential areas of cooperation among the Parties	Council	\$70,000	Council to decide timing of the production of subsequent briefing books, perhaps as a three-year cycle In years when the briefing book is not published, annual updates on new findings and science related to each thematic area will be compiled
	Quality Assurance Summary	Secretariat review: February 2008 Party review–Quality assurance: March 2008				

PROJECT 1 – Reporting on the State of the North American Environment						
Objective – Provide an objective, scientific appraisal of current environmental conditions, in support of North American decision-making						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<i>Report:</i> Briefing Book on State of the North American Environment	Publication: May 2008				
3. SOEAG meeting to follow -up on Council feedback and direction.	Recommendations from SOEAG on next steps for project, including any required public/expert reviews of the briefing book and process for developing recommendations for cooperative activities, for Party review and clearance	July	Develop expert-level consensus on action plan for developing information on “challenges and opportunities” for each environmental topic	Alt. Reps	\$20,000	As required in future years
4. Consultations with JPAC, national advisory committees (NACs), governmental advisory committees (GACs)	Summaries documenting public input	September	Advice and information from stakeholder networks is obtained	Council	\$10,000	As appropriate in future years
	Quality Assurance Summary <i>Background paper:</i> Public input summary	Secretariat review: September 2008 Party review–Quality assurance: October 2008 Publication: November 2008				
5. Develop recommendations for next CEC	Draft information on “challenges and opportunities” for	December	Effective strategic planning and annual work plans.	Council	\$50,000	Depending on resource availability, the SOE project may also include

PROJECT 1 – Reporting on the State of the North American Environment						
Objective – Provide an objective, scientific appraisal of current environmental conditions, in support of North American decision-making						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Strategic Plan	cooperative activities					developmental tasks to convene experts to create harmonized North American indicators for the briefing book topics. This would be a sequential process that would yield results over an extended period of time.
Total Cost: \$160,000						
Performance Measurement Indicators: - Briefing book delivered for 2008 Council meeting. - Briefing book stimulates an informed discussion of North American environmental topics and potential areas of cooperation among the Parties, and is a valuable asset in the development of the 2010–2015 CEC Strategic Plan.						Key Partners: Environment Canada Semarnat US EPA JPAC

Project 2	Mapping North American Environmental Issues	Responsible Project Manager at the CEC Secretariat	Cody Rice
Planned Allocation	C\$165,000	Working Group(s) associated with this work	North American Atlas Consultative Group (NAACG)

Objective of Project

The objective of this project is to enable the visualization of North American environmental information through maps. This will be accomplished through the continuing development in 2008 of a digital North American Environmental Atlas. This project will enhance awareness of environmental topics with continental scale, add value to other CEC projects, provide a framework for geo-referenced environmental data, and build networks among partner mapping agencies through collaboration on harmonized map layers.

Background

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, Geografía e Informática* (INEGI), 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 other 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). Work is currently underway to finalize a digital version of the North American watersheds base

layer, which was also produced in a wall map format. The completed base map layers are available for download from the Atlas of Canada <<http://geogratis.gc.ca/>> and the National Atlas of the United States <http://nationalatlas.gov/articles/mapping/a_naa.html>.

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 Consultative Group (NAACG). This group serves an advisory role for the project and provides a focal point for trilateral collaborative activities.

In terms of developing environmental content for the NAAF, the CEC first turned to information developed through other project activity at the CEC. Over the last year, this project developed NAAF-compatible data layers for renewable energy capacity, terrestrial ecoregions, grassland priority conservation areas, and the Baja-to-Bering network. Based on an identified priority to develop thematic layers for land cover, the CEC has also lent its support to a technical subgroup of the NAACG, which is developing a North American Land Change Monitoring System (NALCMS).

The CEC has also been active in exploring innovative, map-based displays on environmental information from CEC project areas. In 2007, this project developed several new maps for the *Taking Stock 2004* report and created an industrial pollution mapping tool for use with the Google Earth mapping service <<http://www.cec.org/naatlas/prtr/>>.

Rationale

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.” Thus far, the primary role of the CEC in the development of this atlas has been to convene the three countries’ government experts and facilitate their cooperative efforts through the NAACG.

This project is primarily aimed at developing the ability to visualize, display, and communicate 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 the interested public and decision-makers by simplifying the geographical patterns associated with environmental data. This requires coordination between the Parties to harmonize and reconcile existing data to permit a seamless North American view.

Activities and Outputs

The development of the digital North American Environmental Atlas will continue in six main areas of work designed to:

- Continue strengthening the collaboration among the Atlas and environmental partner agencies of the three countries through an annual in-person meeting and regular conference calls. This will promote the identification of issues of common interest and foster improved exchange of environmental information.
- Make existing CEC data sets compatible with the North American Atlas Framework. Any data set that includes location data such as latitude and longitude or jurisdiction is potentially compatible with the NAAF. This work will populate the Atlas framework with relevant environmental information based on CEC work in various areas, such as air quality, chemical management, PRTR, and biodiversity, to better serve the needs of existing CEC user groups.
- Support the development of a North American Land Change System that will utilize remote sensing data and a harmonized land-cover classification system to produce annual land cover maps at a 250-m cell resolution.

- Create new map layers of environmental themes that are seamless, harmonized, and consensus-based, in priority areas identified by the NAACG.
- Explore the feasibility of new thematic layers and innovative map dissemination methods. This task aims to increase the understanding of requirements for creation of additional harmonized North American geo-referenced data layers. It also seeks improvements in the utility of CEC information products through, for example, the creation of interactive mapping tools using Google Earth and Google Maps.
- Strengthen the CEC’s capacity to identify and manage information assets, and provide effective means to use them to maximum benefit—with a particular emphasis on integrated, geo-referenced or “GIS-based” (geographic information system–based) information.

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.
- Development of additional map layers and geo-referenced datasets.
- Ongoing posting and maintenance of geospatial data, map layers, and metadata to webpage.

Intermediate Outcomes:

- Identification of appropriate niche for CEC mapping activities.
- Consensus on priorities for improvements to existing products and understanding of requirements for new thematic layers.
- Successful collaborative arrangements, including processes to maintain, update, and disseminate existing products.
- Digital atlas covering continent-wide environmental topics available through CEC website.
- More effective use of maps and map-based displays in CEC reports and information products.

2008 Project Description

- Wider awareness of Atlas and CEC mapping products.
- Additional attention to North American—scale research questions by academics and other researchers.

Final Outcomes:

- 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.

Performance Indicators:

- Currently available:
 - Traffic on Atlas pages of CEC website.
 - Specific use of Atlas map layers in CEC reports.
- Potentially available:
 - References to Atlas map layers in media.
 - Use of Atlas map layers in poster presentations and academic research.

Timetable and Project Sustainability

At current levels of project funding and staffing, it would be reasonable to expect broad coverage of North American environmental themes within three to five years. This schedule may be accelerated to the extent that other CEC project areas define map layers as priority tasks, and in-kind support from mapping agency partners can be identified. To the extent that there is a demand for updated map layers or analytical work based on mapping products, this project would be expected to be an ongoing effort.

Over the next two to three years, the CEC expects to produce additional environmental thematic layers and pilot applications of innovative mapping products, using 1:10 million and/or 1:1 million scale coverage, of environmental topics with trilateral interest, North American scale, and readily available geo-referenced data.

Possible Future Topic Areas include:

- Pollutant monitoring sites.
- Renewable energy potential (solar, wind, biomass, hydro, geothermal).
- Updated renewable energy capacity.
- Forests.
- Wetlands.
- Air quality.
- Soils.
- Geology.
- Trade flows.
- Transportation modes and infrastructure.
- Indigenous areas.

This project will create networks among mapping experts in the key mapping agency partners.

Longer-term project sustainability is dependent upon perceived value of data harmonization efforts, the utility of innovative map displays and interactive applications, and national priorities.

Communications

The primary target audiences for this project are: 1) those of 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, and 3) researchers who may be interested in learning more about the availability of harmonized North American environmental data.

The webpage for the North American Environmental Atlas will serve as a primary communications focus, but the CEC also expects to incorporate improved maps into such CEC information products as the *Taking Stock* series and the briefing book on North American environmental topics under preparation in Project 1 (Reporting on the State of the North American

Environment). In addition, the project manager and NAACG members would take advantage of their ongoing participation in conferences and workshops to raise awareness of the North American Environmental Atlas.

It is anticipated that print versions of selected NAAF data layers be produced on a periodic basis for widespread distribution to the public and stakeholders. Past examples include the print versions of the North American base map and the print version of North American Watersheds. In 2008, the Secretariat will explore the possibility of a map produced and distributed in partnership with *Canadian Geographic*.

Information Management

Upon completion, all metadata, shape files, keyhole mark-up language (KML) file formats, and geospatial databases will be maintained on the CEC website on a page devoted to the North American Environmental Atlas. This will serve both archiving and distribution functions for mapping related data files. Some layers (in particular, base layers) may be mirrored on mapping agency partner websites; the *Atlas of Canada* has also offered to explore the

possibility of offering interactive North American thematic maps through its website.

At the outset, CEC interactive content will be limited to files produced in a Google Earth format. During this year, there is a developmental task to explore the potential of Google Maps for interactive access.

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 new 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.

It is expected that mapping requirements will be incorporated into other contracts for CEC projects using the project manager for Environmental Information and NAAF guidance documents as references.

Implementation Plan

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 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 and mapping agency partners Monthly conference calls Identify proposed strategic priorities for Party review and clearance in preparation for the 2009 work plan Presentations at conferences and workshops	Jan–Dec	Consensus on priorities for improvements to existing products, development of new thematic layers, 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	\$27,000	Annual planning and coordination meeting of national Atlas agencies and mapping partners Monthly conference calls Presentations at appropriate conferences and workshops
2. Make existing CEC project data compatible with the NAAF	PRTR “matched” database for 2005 and updated Google Earth PRTR layer Acid deposition, pending completion of EM&A activity	Jan–Dec	Increased awareness and/or knowledge of availability of industrial pollutant data for specific facilities Facilitation of geographic analysis of industrial pollutant data	Existing users of PRTR data including individuals, organizations, academics, governments Citizens with an interest in industrial pollution living in border regions Researchers with an	\$12,000	Possible future areas: • Air quality • Pollutant monitoring sites • Renewable energy potential (solar, wind, biomass, hydro, geothermal)

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
				interest in environmental topics at the North American scale		- Updated renewable energy capacity - Trade flows
	Quality Assurance Summary <i>Ongoing database/dataset:</i> PRTR Google Earth layer for Reporting Year 2005	<i>Google Earth</i> layer format already developed, update annually for launch with <i>Taking Stock</i> Online Development, February–March 2008 Party Review, April 2008 with other <i>Taking Stock</i> materials Availability online as kmz file for download, May 2008				
	Quality Assurance Summary <i>Project database/dataset:</i> Acid Deposition map layers	ESRI GIS shapefiles developed in 2007 as activity of Monitoring and Assessing Pollutants in North America project Party Review, December 2007 Availability online as jpg image, GIS gridded data, and metadata for download, January 2008				
3. Support development of North American Land Change Monitoring System	Harmonized classification system and capacity in each Party to produce annual data layers related to land cover at 250-meter cell resolution North American land cover/land	Jan–Dec	Ability to characterize changes in land cover on an annual basis Improved visualization and understanding of North American environmental themes through mapping products Create collaborative networks among subject-matter experts at national	International organizations with an interest in tracking continental scale patterns of land change Researchers with a wide variety of academic interests related to land change Nongovernmental organizations with	\$40,000	Possible future areas: - Fractional products such as percent impervious and tree cover percentage 30-meter cell resolution products - Development of land cover/land change indicators

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	change layers: - Moderate Resolution Imaging Spectro-radiometer (MODIS) image composites - MODIS thematic land cover - MODIS spectral change and land cover thematic change		mapping agency partners	interests in habitat and conservation Land managers or planners interested in detecting land change that may impact valued resources National agencies or organizations involved in transborder land-cover assessment projects		Publication of regular report on trends in North American land cover
	Quality Assurance Summary <i>Ongoing database/dataset:</i> North American Land Cover Thematic Map Layers (2005–2006)	Development, December 2007–January 2008 (MODIS image composites), June 2008–September 2008 (Thematic Land Cover), November 2008–December 2008 (Land Cover Change) Party Review, January 2008 (MODIS image composites), October 2008 (Thematic Land Cover), January 2009 (Land Cover Change) Availability online as images, GIS data, and metadata for download, February 2008 (MODIS image composites), November 2008 (Thematic Land Cover), February 2009 (Land Cover Change)				

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
4. Create new map layers of priority environmental themes	Elevation Land cover Protected areas Ranges of species of common conservation concern Population density Watersheds (digital)	Jan–Dec	Improved visualization and understanding of North American environmental themes through mapping products Create collaborative networks among subject-matter experts at national mapping agency partners	Members of general public who are interested in understanding North American environmental issues Researchers with an interest in environmental topics at the North American scale National mapping agency partners	\$52,000	Possible future areas: • Forests • Wetlands • Water quality • Air flows • Soils/soil chemistry • Geology • Population demographics • Transportation modes and infrastructure • Indigenous areas
	Quality Assurance Summary <i>Project database/dataset:</i> North American Elevation Thematic Map Layer	Development, September 2007–January 2008 Party Review, February 2008 Availability online as jpg image, GIS data, and metadata for download, March 2008				

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Quality Assurance Summary <i>Project database/dataset:</i> North American Land Cover Thematic Map Layer (2000)	Development, February–April 2008 Party Review, May 2008 Availability online as jpg image, GIS data, and metadata for download, June 2008				
	Quality Assurance Summary <i>Project database/dataset:</i> North American Protected Areas Thematic Map Layer	Development, September–December 2007 Party Review, January 2008 Availability online as jpg image, GIS data, and metadata for download, February 2008				
	Quality Assurance Summary <i>Project database/dataset:</i> North American Ranges of Species of Common Conservation Concern Thematic Map Layer	Development, November–December 2007 Party Review, January 2008 Availability online as jpg image, GIS data, <i>Google Earth</i> layer, and metadata for download, February 2008				

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Quality Assurance Summary <i>Project database/dataset:</i> North American Population Density Thematic Map Layer	Development, May–October 2008 Party Review, November 2008 Availability online as jpg image, GIS data, <i>Google Earth</i> layer, and metadata for download, December 2008				
	Quality Assurance Summary <i>Project database/dataset:</i> North American Watersheds Thematic Map Layer	Development, August 2008 Party Review, September 2008 Availability online as jpg image, GIS data, <i>Google Earth</i> layer, and metadata for download, October 2008				
5. Explore feasibility of new thematic layers and innovative map dissemination	Google Earth (Cross-border Aquifers, Global Earth Observation System of Systems [GEOSS]/Remote Sensing) Google Maps (North American Marine Protected Areas Network [NAMPAN]/B2B Network)	Jan-Dec	Understanding of requirements for creation of harmonized North American geo-referenced data layers Improvements to utility of geo-referenced data in CEC information products	CEC National Atlas programs and key national mapping agency partners Members of general public who are interested in understanding North American environmental issues	\$24,000	Migration/conversion of static data layers to interactive formats and applications, as appropriate

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Delivering interactive North American maps through the online Atlas of Canada Feature map publication in cooperation with <i>Canadian Geographic</i>					
	Quality Assurance Summary <i>Project database/dataset:</i> NAMPAN/B2B Network for Google Maps	Development, see NAMPAN schedule Party Review, with NAMPAN QAPP Availability online as Google Map, June 2008				
6. Develop Secretariat capacity to support North American Environmental Atlas	Acquire/renew licences for GIS software Update CEC website	Jan–Dec	Better use of geo-referenced data in CEC information products Improvements to range of mapping products available through reports and website	CEC Users of CEC website and other information products	\$10,000	Evaluate GIS software requirements Update CEC website Evaluate efficiency of contracting versus in-house GIS technical support
Total Cost: \$165,000						
Performance Measurement Indicators:						Key Partners:

PROJECT 2 – Mapping North American Environmental Issues						
Objective – Strengthen the capacity of North American decision-makers to understand continental environmental issues of common concern						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
▪ Traffic on Atlas pages on CEC website ▪ References to Atlas map layers in media ▪ Specific use of Atlas map layers in poster presentations and academic research ▪ Specific use of Atlas map layers in CEC reports						Natural Resources Canada Environment Canada <i>Canadian Geographic</i> <i>Instituto Nacional de Estadística, Geografía e Informática</i> (INEGI) Semarnat <i>Comisión Nacional para el Conocimiento y Uso de la Biodiversidad</i> (Conabio) <i>Comisión Nacional Forestal</i> (Conafor) US Geological Survey US EPA

Project 3	Harnessing Market Forces for Sustainability	Responsible Project Manager at the CEC Secretariat	José Carlos Fernández
Planned Allocation	2008: C\$465,000 Completion of 2007 outputs (information products submitted for QAPP review prior to 31 December 2007): C\$18,100 Total: C\$483,100	Working Group(s) associated with this work	Trade and Environment Working Group

Objective of Project

To promote policies and actions that provide mutual benefits for the environment, trade and the economy and encourage sustainable consumption, production and trade in North America by:

- promoting and facilitating green purchasing policies and practices;
- developing and promoting models for greening the supply chains in selected sectors (including auto and electronics);
- enhancing regional capacity and addressing market barriers for production and consumption of renewable energy; and
- promoting and applying market-based approaches to support protection, conservation, and sustainable use of biodiversity.

Background

Two elements of the CEC's *Strategic Plan on Trade and Environment* seek to: (1) 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; and, (2) 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 fulfillment of those general objectives the CEC has supported work ranging from renewable energy, to green procurement, to exploring market-based mechanism for conservation. More recent efforts concern greening the supply chain in various sectors, including automobiles and electronics.

These areas of work converge to ensure that market forces encourage sustainable consumption, production and trade patterns across North America. This project encompasses all related work under one unifying umbrella, with four components. A more specific description of the background on each component follows.

Component A: Renewable energy

The CEC has been sharing information and collecting data on renewable energy since the 2002 Article 13 report *Environmental Challenges and Opportunities of the Evolving North American Electricity Market*. Since that time, the CEC has helped enhance the development of the North American renewable market through a number of activities, including: work on definitions of renewable energy, papers on market, policy, and financial mechanisms, documentation of the status of green certificates and the harmonization of their standards, tracking, and definitions across North America, developed a web-based collection of "how-to" guides, among others, as well as promoting further exchanges through workshops and stakeholder meetings and consultations.

Component B: Greening supply chains

In 2005, the CEC developed pilot projects in selected Mexican industries to green their supply chains. 'Greening the supply chain' refers to buyer companies requiring a certain level of environmental responsibility in core business practices of their suppliers and vendors. The CEC's Green Procurement project is part of this effort to create a *demand pull* for the key players in the supply chain. However, the relevance of small and medium-size enterprises (SMEs) in many of the supply chains led this project to

concentrate also on the *supply side*, by identifying and addressing barriers to environmental improvement in SMEs. The project therefore focused in building their capacity to identify and develop environmental improvement projects

In 2006, some 65 supplying companies and six of their clients have developed green supply chain projects through their participation in the CEC-sponsored program. Anticipated savings are reported to be almost US\$4 million in direct costs as well as savings in water, paper and cardboard, hazardous waste, solvent emissions and CO₂.¹

In the case of the automobile sector, CEC Council Resolution 06-06 establishes a roadmap for the development of public-private partnerships in North America. Work on this project was initiated in 2007, with the initial kick-off meeting held in October.

Finally, the North American Clean Electronics Pollution Prevention Partnership (CEP3) is a voluntary environmental leadership initiative of the CEC developed at the initiative of the three North American National Roundtables for Pollution Prevention (NAP3). As part of the CEC's CEP3 initiative an expert consultant was commissioned to develop a Clean Electronics scoping report from work (unpublished but completed May 2006) that had identified four priority areas: procurement, implications of the RoHS directive, environmental design and, end-of-life management. This was followed by needs assessments conducted in all three countries, the Mexican assessment being concluded in late 2007. In the second half of 2007, the CEC commissioned a study to identify best practices in green procurement as well as end-of-life management in SMEs in North America.

Component C: Promoting green purchasing

Work in this area began in 2000, motivated by the importance that the NAFTA Parties attach to the promotion of North American markets for green products and services and their commitment to promoting their purchasing and use. Initial work in this area included the establishment of the North American Green Purchasing Initiative (NAGPI, 2002), involving representatives from the three Parties as well as members of the most important green purchasing initiatives in the region. To counter obstacles that

prevent growth in North American green procurement markets, the 2005 *CEC Strategic Plan on Trade and Environment* identified the need to share information about: successful procurement techniques, market segments within and outside the national governments, and any existing life-cycle or cost-benefit tools appropriate for purchasing a given product or service. Also, there is no common baseline of energy and environmental attributes for measuring the “greenness” of a given type of product or service in order to identify the greenest one.

By 2006, the CEC, through the support of NAGPI, had compiled a set of case studies and green-purchasing policies, as well as a database of supporting tools and procurement policies found across North America, and developed a green purchasing self-assessment tool for organizations (EcoEval). A pilot project was also initiated in Mexico with Semarnat and the worldwide cleaning association, ISSA, to improve procurement policies for cleaning products and the awareness of the industry of these upcoming standards.

Component D: Conserving biodiversity through trade

The CEC has been working to assess the markets for environmental goods and services for more than a decade. Previous work includes the development of the markets for shade-grown coffee, followed by eco-palm fronds. These are proven examples of applying market-based approaches to increase environmental protection and conservation while *greening* trade in North America. The Commission aims to build upon these successes in an effort to increase sustainable trade while achieving environmental goals.

During 2007, it was proposed that the project develop an implementation plan for a product selected on the basis of a scoping study. However, the scoping study did not facilitate identification of a clearly defined product or species.

In 2007, the CEC also began preparation of a guide/tool kit for green enterprises in North America. The International Institute for Sustainable Development (IISD) has been a partner in the development of the toolkit; however, it was not been able to gather all the funds necessary to finish the guide/toolkit in 2007. The Secretariat intends to support this work in 2008 and bring it to successful completion.

¹ *Greening Supply Chains: Report on Activities and Results*. This report documents and analyzes the advances made in the Greening Supply Chains project, promoted by the CEC, in collaboration with the GEMI initiative and the Queretaro state government. QA 06.2

Rationale

Component A: Promoting Renewable Energy Production and Consumption

By supporting the increased production and trade in renewable energy across North America, the project responds to the objectives of the NAAEC to promote sustainable development, and to support the environmental goals and objectives of NAFTA. Moreover, renewable energy has a number of environmental benefits, including reduced air pollutant and greenhouse gas emissions. Renewable energy can help address the key challenges of sustainable development, promote energy diversification and security and, most notably, foster economic development while reducing the environmental impact of energy consumption and production.

At the 2007 North American Leaders Summit, the three federal government leaders called for the further development of clean and sustainable energy. They state support for an integrated approach to climate change, energy security and economic development, and support the development and deployment of clean energy technologies. They further note that, “Cooperation among our major economies on a range of policy tools and sectoral approaches will advance these objectives.”

The Joint Public Advisory Committee (JPAC), in Advice to Council Nos. 04-05 and 06-01, urged the CEC Council to promote aggressively the use of renewable energy to achieve its objectives for environmental protection and improved human health and the well-being of citizens of North America. This project responds to this advice.

The high-level trade and environment officials recommended that the Secretariat help organize a meeting of the senior environmental officials with the North American Energy Working Group to identify the role the CEC can play in fostering renewable energy in North America.

Component B: Greening Supply Chains in North America

In the Puebla Declaration, the Parties pledged CEC assistance to 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. The 2005–2010 Strategic Plan reflected this mandate and established, as part of the objectives over the next five years—focusing on Mexico—the improvement of private sector environmental performance through model

environmental compliance approaches.

The CEC sought to develop this mandate through the development of an eco-efficiency model, exploring win-win opportunities for financial gain and environmental protection. The model was to build opportunities to partner with existing regional initiatives, enabling its dissemination through enhancing capacity and developing suitable financial strategies.

This was the rationale for activities that would develop and apply eco-efficiency approaches in some supply chains in Mexico, building on the work of partners such as GEMI and collaborating with Profepa.

Mexico has expressed an interest in assuming the greening the supply chain work and, therefore, the CEC will facilitate that process. In addition to completing the train-the-trainers program and financing strategy work, links will be established in 2008 with related programs, such as UNDP’s supply chain efforts and various Mexican government programs that support supply chains, such as *Secretaría de Economía* funds for SMEs. Successful adoption of this component of the project is critical to maintaining the momentum achieved within Mexico.

Automobiles

In the auto sector partnership, the CEC proposes a different approach that would serve as a catalyst for collaboration between related initiatives in the three countries. Given the high degree of economic integration in the supply chains among NAFTA members, an integrated approach to greening the supply chains makes sense as a way to improve the overall environmental performance of the North American auto industry. This project is dependent upon the active role of specific departments within the three countries. More substantive work will take place in 2008 and is expected to continue into 2009.

Finally, this project is mainstreaming the work initiated within the Green Purchasing project (a Mexican pilot project on cleaning products and services) while changing emphasis towards a more greening supply chain type of work. This work is intended to be handed over to Mexico in 2008 in the same way as the models for improved environmental performance.

Electronics

The purpose of this project is to support capacity building among SMEs in the electronics sector throughout North America, and to maintain and enhance the NAFTA region's competitiveness and sustainability. It meets the 2005–2010 Strategic Plan Capacity Building objective to "...improve private sector environmental performance through model environmental compliance approaches" and "strengthen the Parties' abilities to assess and manage chemicals of concern" by working with the private sector and communities, as well as with government.

There are concerns that North American SMEs are not sufficiently aware nor able to respond to changes in parts, components and product design requirements being driven by the need of larger suppliers and original equipment manufacturers (OEMs) to comply with regulatory initiatives such as the European Restriction on Hazardous Substances (RoHS) Directive and China's RoHS Directive. These directives are targeting the reduction or elimination of such materials as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs). Lack of information or awareness of the potential impact of such initiatives and the associated pollution prevention opportunities could hamper access to global markets.

More recently, fast growth in the now-huge global market for consumer electronics has also led to increased low-cost competition and a shortened product lifespan that finds older products ending up in landfills more rapidly. The potential role for the CEC in addressing this issue was acknowledged by North American trade ministers at the FTC meeting in Vancouver (Joint Statement on NAFTA Commission Meeting), 14 August 2007. The trade ministers agreed to work with the CEC to explore ways to address the environmental impacts of the lifespan and disposal of consumer electronics.

The CEC aims to gather existing information and tools existing or under development by stakeholders in the three countries and adapt them to SMEs. It also aims to partner with stakeholders to provide capacity building to those actors with least access to information. The three pollution prevention roundtables have identified a need for NAFTA countries, which have substantial trade in electronics components, products, and waste among them, to work together to share experience and build upon each others' knowledge.

Component C: Promoting Green Purchasing

This project responds directly to one of the four objectives of the *CEC Strategic Plan on Trade and Environment*: "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." More specifically, it responds directly to one of the areas of work identified in the same strategic plan.

The rapid growth in green procurement initiatives in Canada and the United States, along with the increasing interest in Mexico, represent opportunities for a CEC role, not only as a catalyst of action and coordination of efforts among the relevant stakeholders in North America, but also to promote faster dissemination of lessons learned. Particularly for Mexico, greater cooperation may foster faster and more effective implementation of green procurement policies and development of markets for green goods and services.

Thus far, NAGPI activities have concentrated on activities directed at removing the barriers identified in the strategic plan concerning information, tools, and the availability of products and services. While this seems to have positively contributed to raising the issue and mobilizing action, the increase in the level of procurement activity, particularly in the United States and Canada, means that the risk of duplicating effort increases and that other stakeholders may be better positioned to develop tools and information, and share them with NAGPI and other networks.

In regard to niche opportunities and outstanding gaps in green procurement work, NAGPI's fifth anniversary meeting identified a number of activities that would be desirable and could form part of the future work of the CEC. These included the need for a centralized resource on green procurement resources and initiatives to assist practitioners in identifying useful information and tools, and others to promote future activities and collaboration for green procurement across North America. There was also agreement on the need for more and better market information—both for buyers and potential providers—as input to strategic decisions. Activity in Mexico is expected to grow rapidly, given the recent changes in legislation and the higher political profile of green purchasing in general. In that regard, Mexico is also seen as an opportunity to leapfrog, particularly in terms of avoiding consumer confusion arising from multiple standards. These results indicate that the CEC could aim to move away from its previous focus on

tools and concentrate on collecting information to develop and maintain a highly credible website on green procurement activities throughout North America. The CEC could provide a series of web-based products (supported by outreach material) that are reliable, unique and of high profile, and that expand the scope and rigor of current eco-market surveys. This information would track the extent to which green procurement has penetrated the public consciousness and become an effective practice in a broad range of organizations and products. This on its own would contribute to increased awareness of the issue in the three countries and also provide better guidance to stakeholders on areas of opportunity and wider possibilities for promoting North American green markets. It could also create a positive incentive by allowing similar entities to compare themselves.

Resources will continue to target the Mexican pilot project, with the aim of wrapping it up in 2008, as well as supporting wider integration of emerging Mexican initiatives with those ongoing and developing in Canada and the United States, through NAGPI.

Component D: Conserving Biodiversity through Trade

This project addresses activity outlined in the *CEC Strategic Plan on Trade and Environment*, namely development of additional examples of successful application of market-based mechanisms for conservation. It also seeks to enhance the availability and quality of information on best practices and analysis of methods to harness emerging green market opportunities.

This is done under two approaches: support for the development of market mechanisms for specific green products, and the development of tools for their wider application.

The Secretariat will seek to maximize product development by focusing on products that meet the criteria set out by the T&E Working Group and, to the extent possible, build on existing work by the CEC and relevant partners in North America. The chosen product should also contribute to poverty reduction, given that this social objective is a key to the effective development of sustainable livelihoods.

The guide/toolkit will help the CEC identify and assemble existing approaches and lessons learned for the development of green markets. This guide is directed both at potential green entrepreneurs as well as support organizations that assist communities in the development of green markets as a tool for conservation.

Activities and Outputs

The key activities and outputs of this project are presented below for each component.

Component A

The key activities/tasks that will be undertaken:

- Historically, many projects have failed due to a lack of trained specialists to properly install and maintain the systems. The need for a collaborative mechanism to support the training of renewable energy specialists in the three countries was identified by the REEC in 2007. In 2008, the CEC will identify education resources available in the three countries that can be networked to educate target users to achieve a common level of understanding of renewable energy, technologies, applications, policies/programs and project development.
- A significant barrier faced by small projects is prohibitively high transaction costs and lack of access to financing. One possibility is for smaller projects to aggregate to overcome these barriers. In 2008, the CEC will evaluate the opportunities and barriers for small renewable energy project aggregation for the purpose of reducing transaction costs or gaining access to financing and other forms of support.

Target groups (group[s] project tries to influence):

- The CEC hopes to involve several new groups this year, including the North American Energy Working Group and North American Association of Issuing Bodies. Following up on the 2007 Indigenous Renewable Energy Forum, we hope to incorporate indigenous issues into both the training strategy and also the community involvement models.

The outputs associated with this project are anticipated to be:

- A paper identifying training resources for stakeholders from the three countries to use, providing a common knowledge of renewable energy, technologies, applications, etc. The paper should also identify accreditation needs in the three countries.
- Once the above-mentioned training resources are identified, hold a

stakeholder workshop to develop a trilateral collaboration strategy on education and training across North America.

- A background paper studying the aggregation of small, renewable energy projects, including the pros and cons of aggregation, barriers to the use of renewable energy and how it could be promoted as a means to reduce the transaction costs or gain access to financing. The paper will include case studies to support the analysis.

Component B

The key activities/tasks that will be undertaken:

- Completion of pilot projects initiated in 2007, including monitoring, follow-up and documentation for 2006/07 pilot projects.
- Support collaboration of the existing (Automobile) Suppliers Partnership Network in the United States with the Mexican Alliance for Technological Improvement in the Auto Sector:
 - Promote integration of project with related initiatives and funding sources.
 - Outreach efforts, including lessons learned from the pilot project, will be targeted at the private sector in Mexico, particularly toward SMEs and those involved in the auto sector.
- Monitoring and documentation efforts, including a report on the pilot project with progress indicators (September 2008), will be directed to decision makers in government and funding agencies to inform the design of support programs for industry.
- This project is developed in partnership with GEMI, Mexican association of automobile manufacturers, Mexican association of auto part manufacturers, US EPA, and others.
- Continue liaising with the NAP3 and providing support to the CEP3 Steering Committee; addressing alternatives to ensure adequate industry involvement in its work.
- Develop and implement an outreach plan to SMEs to further disseminate the information and tools developed in 2007.
- Explore the possibility to establish linkages with the FTC project on clean electronics with the support of the T&EWG.

Component C

Key activities:

- Support the creation of a central information resource on green procurement in North America.
- Support development of market information on green products and procurement practices.
- Scoping paper on potential trends on standards for key product categories with particular emphasis in perspectives for North America.
- Support work to adapt and extend current materials to Mexico.

Outreach:

- Support integration/participation of emerging Mexican initiatives and key stakeholders, through NAGPI, including targeting other stakeholders such as municipalities, trade corridor associations and universities.
- Ongoing support for outreach activities, including support for NAGPI.

Pilot projects:

- Basic support and technical assistance to develop Mexican-made green cleaning products, including providing market information.

Outputs:

- Support for NAGPI conference calls and annual meeting.
- Support for outreach activities to other stakeholders, including municipalities, trade corridor associations and universities.
- Support creation of central information resource in collaboration with NAGPI membership.
- Support for the EcoMarkets survey and other relevant market research on green products.
- Address issues related to the multiplicity of labels and certification schemes (promote greater coordination among initiatives, particularly with the emerging Mexican market).

- Promote development / adaptation of tools and information to the Mexican context in areas with high potential for positive environmental impact.

Component D

The key activities/tasks that will be undertaken:

- Develop and implement plan for selected products.
- Completion of the guide/tool kit for green enterprises in North America.

Target groups (group[s] project tries to influence):

- Local producers of selected products in the three countries.
- Consumers in North America.

Partners/stakeholders (groups who will participate in implementation):

- Some of the potential key partners in this next phase of work include Conabio's (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*) Program on Collective Biological Resources, Pronatura, AC.
- Other more specific partners will depend on the product selected.
- As support for toolkit, IISD, Forest Trends, and the Katoomba Group are potential partners, given their experience in the development of the ecosystem marketplace website.

Associated outputs/products (including timelines for completion) (note that quality assurance project plans will be prepared for each product/service):

- Completed toolkit for green enterprises (September 2008).
- Outputs for specific products will depend on product selection. Implementation plans should be ready by July 2008).

Anticipated Outcomes and Performance Indicators

Direct Outcomes

Component A

- Increased knowledge of existing education and training resources, and how they can be fostered through cooperation.

- Increased understanding of the state-of-the-art of project aggregation and how it can benefit the development of renewable energy projects.

Component B

- Greater awareness of the potential for cost-effective environmental improvements along supply chains and of the positive relationship between environmental performance and financial performance.
- Direct reduction of environmental impacts in supply chains involved in pilot projects.
- Model approaches for environmental management tested in selected supply chains with demonstrable improvement in environmental compliance and competitiveness.
- Initiative to partner among initiatives in North America started in the auto sector.
- Raise awareness of SMEs in the electronics sector about new regulations and procurement policies and best practices.
- Build the capacity of electronics sector SMEs to adopt a prevention approach to reduce the use of substances of concern.

Component C

- Better information available on the status and trends of green procurement in North America.
- Continued communication and central information-sharing platform.
- Green procurement criteria actually applied in Mexico, with greater involvement from industry, to ensure availability of environmentally preferable cleaning products.

Component D

- Greater use of market-based instruments that support environmental protection, conservation, and the sustainable use of biodiversity.
- Validated methodologies for development of market-based instruments.
- Greater availability and quality of information on tools for green enterprise development in North America.

- Mechanisms for supporting North American sustainable-use markets.

Intermediate Outcomes

Component A

- Increased cooperation and information-sharing with respect to education and training with respect to renewable energy.
- Establishment of an integrated North American renewable energy certificate tracking system.

Component B

- More financing and trainers to develop more greening supply chain projects.
- Proven models of trilateral cooperation to improve environmental performance and green the North American industry.
- SMEs in the electronics sector are better equipped to meet new market demands for cleaner electronics leading to a reduction in the use of substances of concern in the manufacturing and disposal of electronics, including through the use of procurement policies.

Component C

- Increased share of procurement decisions incorporating environmental considerations.
- Increased use of common information, tools and criteria across North America.
- Increased demand for environmental goods and services.
- Strengthening of North American markets for environmental goods and services.

Component D

- Enable more efficient and effective development of additional initiatives.
- Additional opportunities for trilateral trade in sustainable products.

Final Outcomes

Component A

- Fostering increased production and consumption of renewable energy across North America.

Component B

- Efficient and effective reduction in environmental impacts across a number of supply chains.
- Greener and more competitive sectors in North America.
- A prevention approach is used to reduce the health and environmental risks associated with electronics production and consumption in North America. This will result in a significant reduction of the use of substances of concern and increased adoption of pollution prevention best practices throughout the product life cycle, while maintaining competitiveness. These changes are supported by changes in procurement policies across North America.

Component C

- Reduced unintended environmental impacts associated with purchasing decisions of North American institutions.
- Increased supply, trade and innovation in environmental goods and services in North America.

Component D

- Improved competitiveness of sustainable products in the marketplace.
- Greater incentives to maintain sustainable production systems and their associated biodiversity.
- Effective conservation of biodiversity and its functions.

Performance Indicators

Component A

- Number of people trained in renewable energy field (number of facilities, number of class spaces, etc.).
- Quantity and quality of relevant and accurate information related to

renewable energy market development (number of document citations, web hits, etc.).

Component B

- Its impact can be measured in terms of the number of additional initiatives that seek to apply the models developed. The follow-up mechanism for the pilot companies could be used to derive some indicators for other industries.
- SMEs effectively outreached in the electronics sector.
- SMEs that have adopted some of the policies recommended in the toolkits.

Component C

- Increased proportion of institutions in North America with green procurement policies and actually changing their procurement practices.

Component D

- Producers effectively using market-based mechanism.
- Trade occurring in sustainable products as a result of project activities.
- Additional initiatives being developed or new networks being active as a result of project activities and outputs.

Timetable and Project Sustainability

Component A

- This is an ongoing project that will require technical advice from the Renewable Energy Expert Committee. Work on a North American integrated certificate tracking system will likely continue for several years. It is envisioned that if an integrated system is developed that it will be independent of the CEC. Developing a network of educational and training facilities requires establishing and maintaining a network that responds to the technical capacity needs across North America. This may take a couple of years to fully mature; however, it should provide value to training facilities and thus they would contribute to its continuation.

- Over the next two to three years it is envisioned that the project will continue working in areas identified through advice from the REEC and approved by the Parties.

Component B

- Testing and validation of model approaches should be done within 2008.
- With materials being published by the latter part of 2008, greater awareness will be achieved gradually during 2009.
- While the direct environmental impact of the program will be documented, other impacts from replication take much longer to achieve and will depend on the level of integration with other initiatives. Some measurable progress could be evaluated towards the end of the Strategic Plan cycle (2010).
- The CEC should allocate some budget for follow-up and capturing media opportunities.
- CEC's efforts will catalyze further action by the Parties and other stakeholders through specific actions and activities. The result of this work will assist in ensuring continued work after the CEC support ends.
- In the electronics sector work, this project attempts to outreach to a majority of SMEs in the electronics sector across North America by 2009–2010.
- Also in electronics, gaps in capacity building will be identified and a system to deliver this capacity through partnerships with the roundtables, industry associations and universities and institutes across North America.
- The various components of the project can be passed on to partners once confidence has been built across partners and a sustained source of financing has been identified to support it, including through the development of private-public partnerships.

Component C

- Significant organizations and some networks already exists promoting “green” consumption/procurement on the part of the private sector and government in Canada and the United States.

NAGPI is a network of network with the goal of coordinating and disseminating information from and for all these entities so as to avoid duplication of work and to facilitate sharing of work and synergies while increasing the active participation of Mexican institutions. It is envisioned that this activity could be gradually scaled down to achieve a consolidated and self-supported trinational network of green procurement, in particular, by supporting the consolidation of the Mexican membership and active participation in NAGPI by 2009–2010.

- The pilot project on cleaning products is expected to be concluded in 2008, with less direct training from the CEC and more assistance in terms of leveraging the financial assistance needed to pass the work to local professionals. This year we are supporting a workshop between ISSA, its members, and potential trainers using relevant green cleaning product experience in the United States and experience from our greening the supply chain project.
- As for the periodic information on green procurement practices, initiatives and policies across North America, they would need continued support, although potential exists to obtain co-sponsoring of this project from various organizations, including NAGPI members who currently undertake more limited surveys and the Parties.

Component D

- The CEC will support and complement work by other organizations already placed at various stages in the chain from habitats to marketplaces. Through effective communication and adequate planning, the CEC expects to define its niche adequately and ensure that other organizations are positioned to carry on activities beyond CEC funding.

Communications

Component A

- The anticipated outputs in 2008 will be of interest to the Parties, grid regulators, organizations interested in purchasing renewable energy (particularly in Mexico), educators, renewable energy developers, and community leaders interested in renewable energy development; including indigenous communities.

- The cooperation strategy on education and training will be primarily of interest to academia and governments. Strategic outreach efforts will ensure that all associated organisations are informed of our efforts.
- Information outputs on project aggregation will require communicating with project financiers, project developers, community leaders interested in renewable energy development, and renewable energy certificate marketers. Each one will have insight into the opportunities and barriers to aggregation, and thus will similarly gain from the perspective of others.

Component B

- Outreach materials (including summary of pilot projects) will be disseminated widely through printed and electronic materials.
- Work towards integration with other initiatives and financial mechanisms will be communicated directly through seminars and meetings.
- This project focuses on SMEs in the electronics sector that may not have the ability to adapt to quickly changing legislation and market place demands. We will initiate outreach to them through their trade association, clients, trade publications, and by meeting them at their annual conventions.

Component C

- Awareness-raising and effective dissemination of information are key elements to overcome some of the obstacles in encouraging green purchasing identified in the *CEC Strategic Plan for Trade and Environment*. Communication activity will target government audiences, procurement officials, SMEs involved in cross-border trade and media in general. The green procurement report is a major component of the strategy. Targeted support to disseminate existing materials and emerging case studies identified as part of the process to assemble the report will help create more visibility for the initiative, particularly in Mexico.

Component D

- Part of the target audience will be reached through the existing channels like printed and electronic publications; however, the more

direct dissemination of the project outputs, particularly to small producers, will be done through our partner organizations at the local level.

Information Management

Component A

- Update of existing online databases (laws and policies, emissions estimator). This initiative should require no additional IT support and will be undertaken in-house.

Component B

- We do not anticipate requiring additional IT resources for this project.
- Outputs will be training material, environmental management tools for SMEs and some survey results. A training platform may also be built and made available to SMEs and large electronics companies. Once we have a better expression of the specific elements and audiences we should make this more precise.

Component C

- The construction of the web base report will involve securing enough web-based tools to administer and develop it, as well as some IT related contracts. Some of the tools that will be incorporated on the website already developed through our Clearing House for green products elaborated under the Harnessing market for sustainability project. The structure will rely on direct links to web documents and we do not anticipate this work to involve a major restructuring of current CEC infrastructure.

Component D

- Great emphasis will be placed on IT technologies and approaches to disseminate the Tool-kit In fact, the Guide/toolkit is intended as an electronic resource from the outset.

Implementation Plan

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Component A: Promoting Renewable Energy Production and Consumption (\$80,000)						
A1. Develop a cooperation strategy to support education and training in the three countries	Paper identifying training resources that stakeholders from the three countries can use to achieve a common knowledge of RE, technologies, applications, etc. Stakeholder workshop to develop a trilateral collaboration strategy on education and training across North America	Summer 08 Autumn 08	<i>Direct Outcomes:</i> Increased knowledge of existing education and training resources, and how they can be fostered through cooperation <i>Intermediate Outcomes:</i> Increased cooperation and information-sharing with respect to education and training with respect to renewable energy Increased potential for domestic equipment manufacturing and support <i>Final Outcomes:</i> Fostering increased production and consumption of renewable energy across North America	a. RE policy makers b. Academia c. Small project developers	\$20,000 \$20,000	RE education and training network Facilitate training in small and indigenous communities
	Summary Quality Assurance <i>Background paper:</i> Identification of training resources	Secretariat/stakeholder review: August 2008 Party review: October 2008 Publication: December 2008				
A2. Evaluation of the opportunities	Background paper analyzing the aggregation of small	Autumn 08	<i>Direct Outcomes:</i> Increased understanding of the	d. RE policy makers	\$25,000	

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
s and barriers for small project aggregation	renewable energy projects, including pros and cons of aggregation, barriers to its use, how it could be promoted as a means to reduce the transaction costs or gain access to financing; includes case studies to support the analysis.	Autumn 08	state-of-the-art of project aggregation and how it can benefit the development of renewable energy projects. <i>Final Outcomes:</i> Fostering increased production and consumption of renewable energy across North America.	e. Small project developers f. Offset marketers g. Financiers	\$25,000	
	Summary Quality Assurance <i>Report:</i> Analysis of challenges and opportunities in aggregation of small renewable energy generation projects	Secretariat/stakeholder review: September 2008 Party review: October 2008 Publication: December 2008				
A3. Support the Renewable Energy Experts Committee (REEC)	Annual meeting and quarterly conference calls Explore means to incorporate indigenous perspective in advice from the REEC.	Ongoing	<i>Direct Outcomes:</i> Technical advice from party-appointed experts on areas where the CEC can help foster renewable energy production and consumption Expert review of CEC output relating to renewable energy.		\$15,000	Continue supporting the REEC
Component B: Greening Supply Chains in North America (\$190,000)						
B1. Completion of pilot projects initiated in 2007,	2007 pilot projects completed and documented	September 2008	Direct reduction of environmental impacts in supply chains involved in pilot projects that implement	SMEs in Mexico Decision makers involved in	\$60,000	In 2009, this task activity should be phased out as such,

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
including monitoring, follow-up and documentation of 2006/07 pilot projects	Integrated assessment of all pilots since 2006 with progress indicators Report on lessons learned	September 2008	improvement projects Model approaches for environmental management tested in selected supply chains with demonstrable improvement in environmental compliance and competitiveness Monitoring mechanism to assess the long-term impact of the project	improvement of environmental performance of industry North American public	\$20,000 \$20,000	since it is expected to be taken on as more policy-level work as Task 3. Some funds and time should be allocated to capture media opportunities
	Summary Quality Assurance <i>Report:</i> Integrated report on Greening the Supply Project in Mexico	Secretariat review: May 2008 Party review: June 2008 Publication: August 2008				
	Summary Quality Assurance <i>Outreach:</i> Executive Summary of integrated report on Greening the Supply Project in Mexico	Secretariat review: May 2008 Party review: June 2008 Publication: August 2008				
B2. Support collaboration of the existing auto sector Suppliers Partnership Network in the United States with Mexican Alliance for Technological	Two meetings of key representatives of the alliances in Canada, Mexico and the United States to develop work agenda and/or initiate practical development of training programs, as needed Translation and	Ongoing	Collaboration opportunities identified with funding mechanisms and broad calendar of activities	Auto sector partners SMEs involved in auto sector industry	\$40,000	The project may follow up, as decided by the Parties and depending on the autonomy of the auto partnership

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Improvement in the Auto Sector	adaptation of existing toolkit materials Training for Mexico partners Facilitate communications among US/Mexican/Canadian members	Ongoing	Collaboration opportunities identified with funding mechanisms and broad calendar of activities	Auto sector partners SMEs involved in auto sector industry	\$40,000	The project may follow up, as decided by the Parties and depending on the autonomy of the auto partnership
	Summary Quality Assurance <i>Outreach:</i> Training materials on lean & clean in Spanish	Secretariat review: March 2008 Stakeholder review: April 2008 Party review: May 2008 Publication: July 2008				
B3. Provide support to the CEP3 Steering Committee	Support to the Mexican Pollution Prevention Roundtable Conference calls and annual meeting of the steering group to plan the activities described below Collaborate with interested industry representatives about potential pollution prevention and clean production projects	Throughout the year Conference call approximately every two months	Well-informed information and capacity building plan as well as good outreach to the appropriate stakeholders Increased ability of SMEs to adapt pollution prevention measures and eliminate or reduce the use of chemical of concerns from their production process	Electronics sector, pollution prevention roundtable. Producers of consumer electronics	\$20,000	Activities in 2009 to reflect any needs to update information materials and development of capacity building strategy
B4. Host a conference co-located with an	Consultative meeting with industry and SMEs	Spring 2008	Better and validated information available to be distributed to SMEs.	SMEs in the electronics sector, their clients, and	\$20,000	Further validation and updating of the tools and information packs may

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
upcoming industry conference in the spring to consult SMEs and finalize the tools and information kits				industry associations that have started worrying about the ability of SMEs to adapt and the linked competitiveness of North America		be needed, but not in the same format with a face-to-face meeting
B5. Develop and implement a dissemination strategy for the awareness information and pollution prevention management tools developed for SMEs	Complete awareness information kits and pollution prevention management tools developed for SMEs, including their comments gathered during the fall	Summer 2008	Increased awareness among SMEs of the need to take a pollution prevention approach to removing or reducing the use of chemicals of concern from their manufacturing process	SMEs in the electronics sector	\$10,000	Follow-up activities to be based on the assessment of the impact of strategy in 2009
	Summary Quality Assurance <i>Outreach:</i> Awareness information kits and pollution prevention management tools	Secretariat review: August 2008 Stakeholder review: August 2008 Party review: September 2008 Publication: November 2008				
Component C: Promoting Green Purchasing (\$105,000)						
C1. Support, development and promotion of green purchasing activities across North America	Support for NAGPI conference calls and annual meeting Support creation of central information resource in collaboration with NAGPI membership		Greater collaboration and exchange of information, knowledge and “know-how” on green purchasing across initiatives in North America Broader participation in green procurement initiatives from local governments, trade corridor	NAGPI members, procurement officers in institutions of the three countries, particularly Mexico, as well as participant trade corridor	\$80,000	It is desirable for NAGPI to become less dependent on CEC funding to operate as well as possibly play a greater role in contributing to the sustainable consumption and production work.

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Support for the EcoMarkets survey and other relevant market research on green products Address issues related to the multiplicity of labels and certification schemes (promote greater coordination among initiatives, particularly with the emerging Mexican market) Promote development / adaptation of tools and information to the Mexican context in areas with high potential for positive environmental impact		associations and universities, particularly in Mexico	associations Local governments Universities in the three countries Members of the Trade Corridor Associations involved in cross-border trade	\$80,000	This would be the basis for continued support into 2009.
	Summary Quality Assurance <i>Background paper:</i> Challenges and opportunities in the integration of environmental labels across North America	Secretariat review: September 2008 Stakeholder review: September 2008 Party review: October 2008 Publication: December 2008				
C2. Support work on greening cleaning	Cleaning products case study developed and documented, including specific work to address	August 2008	Green procurement criteria actually applied in Mexico, with greater involvement from industry to ensure availability of	Companies, mainly SMES, in the Mexican cleaning and cleaning	\$25,000	Support for this activity is not expected to go beyond 2008. It will be mainstreamed as much

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
products in Mexico	the need of market information	August 2008	environmentally preferable cleaning products	product industry	\$25,000	as possible with work under task 1.
	Summary Quality Assurance <i>Background paper:</i> Green procurement in Cleaning products in Mexico	Secretariat review: September 2008 Stakeholder review: September 2008 Party review: October 2008 Publication: December 2008				
Component D: Conserving Biodiversity Through Trade (\$90,000)						
D1. Design and implement a plan to develop market for product(s) selected in 2007	Development of detailed product specific implementation plan with clear identification of specific areas of relevant CEC activity Organize meetings of relevant stakeholders (producers, intermediaries, decision makers, etc.) for selected products or services Based on the implementation plan as well as the interaction with stakeholders, implement activities to promote a sustainable market for selected product. This include	March 2008	Validated methodologies for development of market-based instruments Greater number of examples of use of market-based instruments for sustainable use	Various local communities Consumers in North America These will depend on the product selected	\$20,000	Depending on implementation plan
		May 2008			\$20,000	
		May–December 2008			\$30,000	

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
D2. Conclude and disseminate methodology for developing sustainable markets	relevant studies on willingness to pay, market obstacles, transaction costs, means to help consumers discriminate sustainable products, etc.					
	Summary Quality Assurance <i>Background paper:</i> Implementation Plan for selected product	Secretariat review: August 2008 Stakeholder review: August 2008 Party review: September 2008 Publication: November 2008				
D2. Conclude and disseminate methodology for developing sustainable markets	Following from the activities in 2007, this task will complete the updating of the “how-to” guide for sustainable businesses. Support workshops with experts to review and add to the draft guides Integrated “how-to” guide	December 2008	Greater awareness of the challenges and opportunities to develop markets for sustainable products and services	Entrepreneurs seeking to venture into sustainable markets in North America Consumers seeking advice on availability of products Policy makers in the identification of gaps and needs when developing incentive mechanisms	\$20,000	Basic maintenance but less intensive, possibility of a periodic assessment and update as needed
	Summary Quality Assurance <i>Electronic information product:</i> Methodological	Secretariat review: September 2008 Stakeholder review: September 2008 Party review: October 2008				

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	“how-to” guide	Publication: December 2008				
Total Cost: \$465,000						
Completion of 2007 outputs (publishing, translation, editing and layout of documents/information products submitted for QAPP review prior to 31 December 2007): \$18,100 07.40 Website of business models, including sources of financing 07.41 Financing Gap Analysis 07.43 Background paper reviewing non-air environmental benefits of using renewable energy 07.45 Fostering the Biofuels Market in North America 07.49 Eco-Markets survey summary results 07.50 Methodologies to quantify environmental and economic impacts 06.08 Community Guide to Developing Small-Scale Renewable Energy Projects - document by Envint 06.14 NAGPI Green Cleaners fact sheet 06.15 NAGPI Green Electricity fact sheet 06.16 NAGPI Printers, Copiers and Fax Machines fact sheet 06.18 Survey by Terrachoice attempting to measure the four aspects of green purchasing (EcoMarkets Survey) 06.19 Life-cycle analysis of NAGPI focus products						
Performance Measurement Indicators: Component A ▪ Number of people trained in RE field (number of facilities, number of class spaces, etc.) ▪ Quantity and quality of relevant and accurate information related to renewable energy market development (number of document citations, web hits, etc.) Component B ▪ Its impact can be measured in terms of the number of additional initiatives that seek to apply the models developed. The follow-up mechanism for the pilot companies could be used to derive some indicators for other industries. ▪ SMEs effectively outreached in the electronics sector. ▪ SMEs that have adopted some of the policies recommended in the toolkits.						Key Partners:

PROJECT 3 – Harnessing Market Forces for Sustainability						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Component C - Increased proportion of institutions in North America with green procurement policies and actually changing their procurement practices. Component D - Producers effectively using market-based mechanism. - Trade occurring in sustainable products as a result of project activities. - Additional initiatives being developed or new networks being active as a result of project activities and outputs.						

Project 4 Environmental Assessment of NAFTA	Responsible Project Manager at the CEC Secretariat José Carlos Fernández
Planned Allocation C\$255,000	Working Group(s) associated with this work Trade and Environment Working Group Advisory Group for the Fourth Symposium on Assessing the Environmental Effects of Trade

Objective of Project

The objective of this project is to respond to NAAEC Article 10(6)(d), which commits the Parties to consider the environmental effects of NAFTA on an ongoing basis. It similarly responds to the objectives of the CEC's Strategic Plan on Trade and Environment that call for broadening the understanding of trade and environment linkages to promote policy coherence, both at the domestic and regional levels in North America. The project also supports that plan's objectives of increasing the capacity of the three countries to identify and address trade-related environmental concerns, and to improve regional and national coordination, including coordination between the CEC and the NAFTA Free Trade Commission.

Background

The ongoing environmental assessment of NAFTA is a cornerstone of the CEC. The CEC's efforts to document the environmental effects of trade liberalization in North America have resulted in reviews and assessments that are utilized by trade and environment officials, nongovernmental organizations and the public to inform both trade and environmental policies in the three countries. A decade of experience shows that the environmental effects of NAFTA are difficult to isolate from those stemming from global trends toward trade liberalization and economic growth. Thus, the focus of the CEC's ongoing work is on trade liberalization in North America rather than NAFTA effects alone.

Pursuant to Article 10(6)(d), the Parties share information, methodologies, and experiences in conducting environmental reviews of trade and investment agreements, with a view to assessing the environmental effects of

NAFTA and other agreements more effectively. This sharing of methodologies and practices among the Parties enables them to build upon each other's work.

The CEC's work thus far has contributed to better understanding of trade and environment linkages by the general public; improved and informed environmental reviews of future trade and investment agreements by the Parties; and improved environmental assessments of NAFTA by all. These benefits are expected to continue to accrue and to lead to greater policy coherence both at the domestic and regional levels in North America by helping the Parties make better policy choices concerning trade and environment issues. They will also help the CEC direct future work toward the concerns that most require attention. The project will further provide the CEC with improved tools to conduct assessments on the environmental impacts of NAFTA in North America.

Further background on the CEC's ongoing environmental assessment of NAFTA can be found at: <<http://www.cec.org/symposium>>.

Rationale

Through assessing the environmental effects resulting from NAFTA, the Parties will:

- better understand of the trade-environment linkage;
- have credible studies to better direct public concerns regarding environmental impacts of trade; and
- better understand how to minimize or avoid adverse environmental impacts of trade; and/or promote positive environmental impacts of

trade on the environment.

Activities and Outputs

As in the past, a sectoral thematic analysis will be the subject of a biennial North American symposium on “Assessing the Environment Effects of Trade.” Each symposium involves selection of one or more themes for the event, creation of an advisory group to guide the Secretariat in developing terms of reference for a call for papers, invitation of researchers and members of civil society to submit proposals, and selection of the best of those proposals received for presentation at the symposium. The assembled proceedings of the symposium contribute to the understanding of the relation between trade and the environment in North America. For the fourth symposium, the Parties have decided to focus on the environmental impacts of trade liberalization in the services sector.

The symposium will build on the previous three symposia and the environmental assessment framework developed by the CEC over the 1994–1999 period. The experience and work of outside experts will be accessed through their participation in the symposia and by engaging them as authors of research papers.

Based on the results of the symposia, and according to the environmental priorities set by the Council, future work will be oriented toward analyzing the commercial flows of goods, services, and investments having the most significant impacts on the environment and on biodiversity. Research will be directed toward projects promoting information exchange, creating evaluation methodologies and identifying better environmental practices in selected sectors, in order to contribute to sustainable development in North America. The project will also explore how work undertaken in other CEC programs can inform work on environmental assessment of NAFTA and vice-versa.

The CEC has always conducted its work in this area in an inclusive and transparent manner, by engaging a broad and balanced spectrum of civil society stakeholders, mainly through the symposia. In their suggestions pertaining to the context of CEC work, stakeholder groups have continually called for improved communication between trade and environment officials. Greater involvement by the Parties (particularly the Trade and Environment Working Group—T&EWG) in shaping the symposia, responds to stakeholders’ calls for collaborative work that addresses current trade and

environment issues. In addition, the symposia seek to involve stakeholders directly in the CEC’s work, thereby increasing its credibility; the symposia are attended by stakeholders from all three countries, and the authors who are presenting their papers often represent a number of stakeholder groups from the three countries.

The CEC will carry out this work in collaboration with the Parties, OECD, UNEP, UNCTAD, WTO/CTE, North American universities, and various NGOs. The work will draw upon lessons learned from both *ex post* and *ex ante* environmental assessments of trade liberalization and changes in trade flows associated with NAFTA.

The output of this project will be 12 studies on various aspects of the environmental effects of liberalizing trade in services; publication of proceedings of the symposium; several journal articles; as well as a fourth symposium, jointly held with JPAC.

More generally, the Parties’ senior trade and environment officials have provided the following directions:

- T&EWG should meet between symposia to discuss the key findings of the research papers presented at the symposia and to explore how these findings inform future CEC work.
- In cooperation with JPAC, T&EWG should review the proceedings, results, and recommendations of the previous symposia with a goal to enhance their usefulness and provide recommendations to the Parties on how to make the ongoing environmental assessment of NAFTA more relevant to policy development and help identify areas for further work in the CEC.

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

- Improved understanding of the environmental effects of liberalizing trade in services.
- CEC known as the institution to look to on trade and environment issues.

Intermediate Outcomes:

2008 Project Description

- Increased capacity of the Parties to minimize or avoid adverse environmental impacts of trade; and/or the promotion of positive environmental impacts of trade on the environment.
- Inform the CEC cooperative work program through identification of opportunities to mitigate potential negative impacts and enhance potential positive impacts.

Final Outcomes:

- Reduced environmental impacts from trade liberalization.
- Trade liberalization contributes to sustainable development, as called for in NAFTA.

Performance Indicators:

- Inclusion of environmental provisions in future trade negotiations.
- Further trade liberalization leads to neutral or positive environmental impacts.

Timetable and Project Sustainability

Commissioned studies will be completed by mid-February 2008, with the symposium to be held in spring 2008. Proceedings from the symposium will be compiled by the fall.

The assessment of the environmental effects of NAFTA is assumed to be an ongoing project within the CEC. Beginning this year, the Secretariat will explore options for the model of biennial symposia that may provide for a more frequent, timely and efficient method of conducting this work. Several options being considered by the Secretariat include an annual granting program (with specific criteria defined on a yearly basis), by which

researchers submit proposals with few research papers selected for funding each year. Researchers could then be requested to present those papers to conferences and publish them in peer-reviewed journal articles. The Secretariat is also considering more frequent symposia, in collaboration with academic or other research centers, on current topics and with an emphasis on outreach and distribution of more regular research papers.

Communications

Communication of the results of this project is targeted primarily toward policy-makers, academia and NGOs, and will involve:

- promotion of the symposium;
- publishing the commissioned papers;
- outreaching to academia through peer-reviewed journal articles; and
- publishing symposium proceedings.

The broad conclusions and lessons learned from this and previous symposia will be included in more general communications material targeting a broader public audience.

Trade and Environment Working Group senior officials have expressed a desire to more widely disseminate the results of symposia. This will be accomplished, in particular, by the dissemination of the symposia proceedings and by continuing to publish symposium papers in special issues of journals. Further ideas will be discussed to assess the future work of the CEC in this area.

Implementation Plan

PROJECT 4 – Environmental Assessment of NAFTA						
Objective – Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Host the fourth North American Symposium on Assessing the Environmental Effects of Trade: Services and the Environment, in partnership with JPAC	Symposium on the environmental effects of liberalizing trade in services Twelve papers documenting the environmental effects of liberalizing trade in services sectors such as tourism, transport, solid waste, etc. Symposium proceedings Journal articles and, potentially, special issues of specialized journals	Spring 2008	Direct Outcomes: Improved understanding of the environmental effects of liberalizing trade in services Intermediate Outcomes: Increased capacity of the Parties to minimize or avoid adverse environmental impacts of trade; and/or the promotion of positive environmental impacts of trade on the environment Final Outcomes: Reduced environmental impacts from services liberalization	Trade ministries Environment ministries Academics NGOs working on trade-related issues Service-related industries conducting trade	\$225,000	Beginning in 2008, the Secretariat will explore options for a more frequent, timely, and efficient method of conducting this work.
	Quality Assurance Summary <i>Report:</i> Symposium proceedings		Secretariat Review : May 2008 Party review : July 2008 Publications : August 2008			

PROJECT 4 – Environmental Assessment of NAFTA						
Objective – Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
2. In collaboration with JPAC, review the proceedings, results, and recommendations of the previous symposia, with a view to providing broader access to their results and provide recommendations to the Parties on how to make the ongoing environmental assessment of NAFTA more relevant to policy development and help identify areas for further work in the CEC	A meeting between T&EWG and JPAC members to discuss the CEC's ongoing assessment	Spring 2008	Improved dissemination of the information developed for and results of the biennial symposia.	Trade ministries Environment ministries Academics NGOs working on trade-related issues Service-related industries conducting trade	\$20,000	
	Quality Assurance Summary <i>Report:</i> Lessons learned from Symposia 1-4	Development by April 2008 as draft document for discussion at JPAC review Drafting with T&EWG – June 2008 Parties review: July 2008 Publication/dissemination: August 2008				
3. Continue supporting the Trade and	Regular conference calls	Ongoing	Improved communication between environment and trade ministries	Trade ministries Environment ministries	\$10,000	

PROJECT 4 – Environmental Assessment of NAFTA						
Objective – Broaden understanding of trade and environment linkages and thereby promote policy coherence, at both the domestic and regional levels in North America						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
Environment Working Group	Two face-to-face meetings					
4. Support information-sharing between Canada, Mexico and the United States on methodologies for conducting environmental reviews of trade agreements, exchanging views and analyses of free trade's impacts on transit cargo	Continue to share information among the NAAEC Parties, and with other international organizations, on Canadian and US efforts to conduct and use the results of environmental assessments	Ongoing	Improved environmental assessments of NAFTA by the CEC and the Parties Better informed trade and environmental policies of the three Parties	Trade ministries Environment ministries Other international organizations	\$0	
Total Cost: \$255,000						
Performance Measurement Indicators: - Inclusion of environmental provisions in future trade negotiations. - Further trade liberalization leads to neutral or positive environmental impacts.						Key Partners: Trade and environmental ministries, academia, and NGOs working on trade-related issues, general North America public

Project 5	Environmental Sustainability and Competitiveness in North America	Responsible Project Manager at the CEC Secretariat	José Carlos Fernández
Planned Allocation	C\$130,000	Working Group(s) associated with this work	Trade and Environment Working Group

Objective of Project

This project aims to simultaneously enhance North American competitiveness and environmental performance. It is proposed that all work in 2008 will be exploratory, focusing on understanding the link between environmental sustainability and competitiveness. This project would also support the work of the NAFTA Free Trade Commission (FTC) on addressing increasing pressures on North American competitiveness. Specifically, it will result in the development of a comprehensive report on the nature and value of good environmental policy and practices, while maintaining or enhancing competitiveness in North America.

Background

- The Trade and Environment Working Group (T&EWG) has asked the Secretariat to develop activities under the umbrella of environmental sustainability and competitiveness in North America. Specifically: 1) a review of previous CEC work on competitiveness and sustainability to identify the areas that have been most successful in fostering North American competitiveness (e.g., increase trade in green products and services) and to identify potential future areas of work, and 2) a joint workshop with the JPAC on this topic.
- Educational, private and not-for-profit institutions throughout North America are working on issues related to either competitiveness or sustainability in North America or both. They will be important partners for the CEC in developing a plan of action for competitiveness and sustainability in North America.
- The T&EWG will be the working group associated with this project. Creation of a specific environmental sustainability and

competitiveness steering committee will be explored at a later time.

- This work by the CEC could make an important contribution to the NAFTA Free Trade Commission (FTC) work on North American competitiveness referred to in the 14 August 2007 joint statement of the NAFTA trade ministers, which notes agreement to “develop a work plan to respond to the ever increasing pressures on North American competitiveness. The plan, which will address the key issues that impact our trade and identify the most effective means to facilitate it, will be developed at our next meeting (2008 Ministerial) so we can develop a strong and competitive North American platform that increases the welfare and the prosperity of all our citizens.”

Rationale

- The CEC’s work on the environmental assessment of NAFTA has shown that, overall, the dire environmental impacts predicted by some during the implementation of NAFTA have not occurred. Nonetheless, we are also not seeing a greening of our economies because the overall scale of economic growth and production impacts outweighs the composition effect that could reduce environmental impacts per unit of output.
- North American economies are highly integrated, thus cross-border cooperation on various issues, including environmental sustainability, can help North America remain competitive in the rapidly changing global economy.
- Recent studies and experience provide evidence that the use of environmentally sustainable practices can have economically beneficial impacts, including by reducing production costs and

reducing business risks.

- There has been increasing attention on regions and cities as key areas for wealth creation and environmental and economic governance, thereby influencing both environmental sustainability and competitiveness. This includes, for instance, transboundary trade corridors. The nature and determinants of environmental sustainability and competitiveness also need to be addressed at the regional and local levels in the development of the work plan.

Activities and Outputs

- Produce a report complementing the FTC's work plan, to respond to the ever-increasing pressures on North American competitiveness referred to in the Joint Statement of NAFTA trade ministers on 14 August 2007. The report will review existing literature on the link between environmental sustainability and competitiveness.
- Hold a workshop with JPAC on environmental sustainability and competitiveness. This workshop will provide input to allow for further defining the scope of work of the CEC in this area.
- Support the development of a special issue of an academic journal that identifies priorities for environmental product policy in North America.

Anticipated Outcomes and Performance Indicators

Support the environmental sustainability of North America through improved competitiveness. Foster the production and consumption of green goods and services in North America to green our economies.

Direct Outcomes:

- Increased awareness of the positive relationships between environmental sustainability and competitiveness in North America.
- Enhanced understanding of the positive relationships between environmental sustainability and competitiveness in North America.

Intermediate Outcomes:

- Greener and stronger economies across the Americas, and increased competitiveness globally.

Final Outcomes:

- Reduced impacts of North American economic activities so as to decouple economic growth from environmental impacts while enhancing North America's competitiveness.

Performance Indicators:

- Links established with relevant organizations across North America.
- Increased public discourse about the positive relationships between environmental performance and competitiveness.

Timetable and Project Sustainability

- This project should be developed to the point of highlighting a clear way to incorporate competitiveness and sustainability opportunities within each CEC project.
- The more academic and pilot parts of the project should be passed on to a consortium of universities across North America after four or five years, with the commitment of the Parties.

Communications

Project outputs will help raise awareness of the important role of environmental policy and performance in enhancing the competitive strength of the region.

Project design and implementation will be carried out in consultation with relevant agencies and stakeholders in the sustainability and competitiveness debate. With this approach, it is expected that the project will provide relevant content that will enhance cooperation among Parties.

This project and its outputs will serve to position the CEC and its Council in relation to NAFTA's governing bodies, with respect to a highly relevant topic for North American industry, government, and policy audiences alike.

North American decision-makers and the consumers of North America are the prime target audience for this project.

Implementation Plan

PROJECT 5: Environmental Sustainability and Competitiveness in North America						
Objective – Enhanced competitiveness through sustainable economic development						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Explore, through the T&EWG and country delegations, as appropriate, potential synergies and areas of cooperation with the work program of the FTC, including on consumer electronics. This joint exploration will be enabled through conference calls and participation in meetings.	Identification of potential synergies and areas of collaboration with the NAFTA Federal Trade Commission (FTC)	Ongoing	More effective collaboration with the FTC, including in consumer electronics	Trade officials	\$10,000	
2. Workshop with JPAC on environmental sustainability and competitiveness	Identify areas to help in fostering North American competitiveness in an environmentally sustainable way Identify potential areas of work for	September 2008	Elements for the development of work plan on competitiveness	Trade and environment officials, industry associations, industry	\$25,000	

PROJECT 5: Environmental Sustainability and Competitiveness in North America						
Objective – Enhanced competitiveness through sustainable economic development						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	the CEC					
3. Report on environmental sustainability in North America and competitiveness, including a literature review on what is currently known about how the application of sustainable practices and policies to income-generating activities can support the competitiveness at the industry and regional/national levels.	Master document reviewing current understanding on the links between competitiveness and sustainability in North America Initial scoping version to be presented at the Workshop referred to under Task 1 Implications for CEC projects will also be assessed	September 2008	Improved understanding of the linkages between competitiveness and sustainability Enable a review of existing CEC projects to take advantage of what is known about the link between sustainable practices and increased competitiveness	Trade and environment officials, industry associations, industry	\$75,000	Based on the results of the study, work with various partners to develop a plan of action for using economic benefits to encourage the application of sustainable practices
	Quality Assurance Summary <i>Report:</i> North American report on competitiveness and environment	Secretariat review: July 2008 Party review: August 2008 Publication: October 2008				
4. Work with an academic journal to support the development of studies	A special journal issue on North American environmental products and sectors	October 2008	Focus work where most economic and environmental benefits can be achieved	Trade and environment officials, industry associations, industry, academia	\$20,000	

PROJECT 5: Environmental Sustainability and Competitiveness in North America						
Objective – Enhanced competitiveness through sustainable economic development						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
identifying priorities for environmental product policy in North America						
Total Cost: \$130,000						

Performance Measurement Indicators: ▪ Right partners involved ▪ Universities contributing ▪ Press coverage of the potential to enhance competitiveness through environmental sustainability	Key Partners: T&EWG, Enforcement Working Group, business schools, environmental schools, municipalities, environmental groups, FTC, JPAC
--	--

Project 6	Trade and the Enforcement of Environmental Laws	Responsible Project Manager at the CEC Secretariat	Evan Lloyd
Planned Allocation	2008: C\$290,000 Completion of 2007 outputs (information products submitted for QAPP review prior to 31 December 2007): C\$15,000 Total: C\$305,000	Working Group(s) associated with this work	North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG) Hazardous Waste Task Force (HWTF) North American Wildlife Enforcement Group (NAWEG)

Objectives

This project has three principal objectives:

- To expedite and facilitate the movement of legal materials across borders, including support for the trilateral efforts of the Parties to implement the Smart Borders plan—and related initiatives—to expedite the cross-border movement of goods and services;
- To stop, in advance and at borders, illegal shipments of hazardous waste and materials, ozone-depleting substances, protected species and wildlife, and other illegal materials that could threaten human health or the environment in the territories of the NAFTA Parties; and
- To improve enforcement capacity to ensure that persons or entities that ship or attempt to ship such illegal materials are appropriately penalized, and to promote sound management of hazardous waste.

The project will help remove materials harmful to human health and the environment from commerce, and allow for their appropriate management. It will also help create a “level playing field” for business across all three countries by helping to ensure successful prosecution of violations of environmental laws. The project will also help eliminate the potential for unfair advantages from lack of effective enforcement of environmental laws. Finally, the project will make possible the electronic exchange of data on export requests and import consents, to improve enforcement.

Background

The North American Agreement on Environmental Cooperation (NAAEC) Article 1(d) and Council Resolutions 96-06 and 03-08 form the basis of this work.

NAAEC Article 1(d) directs the Parties to support the environmental goals and objectives of NAFTA, which 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 1996, the Council established the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), composed of senior-level environmental enforcement officials. The EWG operates under the terms of reference contained in Council Resolution 96-06, which reinforces the Parties’ commitment to strengthening North American enforcement cooperation.

Since 1996, the EWG has identified the need for improved capacity to track and enforce laws regulating the transborder movement of hazardous wastes and ozone-depleting substances (ODSs), and for cooperative approaches concerning the enforcement of domestic laws that implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In this vein, the CEC has supported a number of capacity-building and information exchange programs for environment and customs officials, in the areas of ODS smuggling, wildlife protection, and improving

cooperation on the tracking and management of transboundary hazardous waste shipments, and it has hosted a number of international symposia on judicial and legal practices across North America.

The Council recognized the need for further cooperation in the area of hazardous waste in 2003 with Resolution 03-08, under which it directed the Secretariat to work with the Parties on a number of specific measures to promote the environmentally sound management and tracking of hazardous wastes.

In response to Resolution 03-08, the EWG established an ad hoc Hazardous Waste Task Force. The Secretariat worked with the EWG and the Hazardous Waste Task Force to incorporate Resolution 03-08 into the CEC work program. The Hazardous Waste Task Force currently assists in the development of the hazardous waste portions of this program plan.

Rationale

This project is directly linked to the Information for Decision-making, the Capacity Building, and the Trade and Environment components of the 2005–2010 Strategic Plan. This project has five tasks.

Task 1, to replace the current paper-based system for Party exchange of hazardous waste information with an electronic-based system, will support the Trade and Environment and the Information portions of the Strategic Plan by laying the policy and information technology (IT) foundation for the electronic exchange of data on hazardous waste export requests and import consents between governments. Electronic data exchange reduces government administrative burdens, improves data quality, makes it easier to provide data to environmental enforcement and border protection agencies, facilitates the adoption of emerging tracking technologies, and helps the governments provide more timely and coherent information on what crosses their national borders.

Task 2, to improve compliance assistance information for the import and export of environmentally regulated materials, will help support the Trade and Environment and the Information components of the program plan by providing compliance assistance information to exporters, importers and other members of the regulated community on environmentally-regulated materials that are traded within North America. It will help ensure that North American governments provide this information in a coherent, consistent and

coordinated manner, thus expediting the transborder movement of legally traded goods.

Task 3, to develop training material for customs and other law enforcement officials, will help support the Trade and Environment and the Capacity Building portions of the Strategic Plan by helping to ensure safe, expeditious, and compliant trade in environmentally regulated materials that can legally cross borders. It will also help prevent illegal trade in environmentally regulated materials that cannot legally cross borders. This will be accomplished by providing training material to each party's customs and other law enforcement officials to detect, identify, analyze, and enforce against illegal shipments of hazardous waste and materials, ozone-depleting substances, protected species and wildlife and other illegal substances that could threaten human health or the environment.

Task 4, to address international threats from noncompliant imports entering North America, supports the Trade and Environment component of the Strategic Plan by focusing on minimizing the adverse environmental and/or human health impacts of trade. This component provides a forum for government officials to coordinate their efforts to identify and address common threats posed by non-compliant imports entering North America from outside North America.

Task 5, to build capacity in legal and judicial systems to support effective enforcement of environmental laws, supports the Trade and Environment and the Capacity Building portions of the Strategic Plan. It supports the effective implementation and enforcement of environmental laws domestically by the Parties. It aims to provide judges, environment ministry personnel, and prosecutors with specialized dissemination of information on environmental laws and issues that arise in enforcement of environmental laws, particularly in cases where violations could result in harm to human health or the environment. It will also provide prosecutors with the skills needed for apprehending persons who attempt to trade illegally in such materials.

Activities and Outputs

The following outputs are part of this project:

Task 1. Common data standards among the Parties, to make possible the electronic exchange of hazardous waste export requests and consent information. The initiation of a pilot program to test the intergovernmental

electronic exchange of hazardous waste export/import data.

Task 2. A compliance assistance workshop to receive input from key stakeholders on the current hazardous waste compliance assistance website at <www.bordercenter.org>. Inputs will be used to provide updates and improvement to the website and for the development of additional compliance assistance information on ozone-depleting substances and other chemicals.

Task 3. Final ODS online training course, as well as the prototype of an online hazardous waste course.

Task 4. Development of a process for identifying and sharing information on noncompliant imports entering North America and addressing issues of common concern.

Task 5. Delivery of a training course on principles of environmental enforcement for judges, environment ministry officials, and prosecutors in Mexico.

This project seeks to provide information for government agencies. Partners and stakeholders in this effort will be import and export trade associations, bar associations, judicial institutes, universities, state and federal agencies and border inspection agencies.

Anticipated Outcomes and Performance Indicators

The anticipated outcomes for this project are outlined as follows:

Task 1: The direct outcome of this component will be a pilot program testing the electronic, rather than paper, exchange of hazardous waste export request and import consent information between governments. This will: (1) reduce government administrative burdens; (2) improve data quality; (3) make it easier to provide data to environmental enforcement and border protection agencies; (4) facilitate the adoption of emerging tracking technologies; and, (5) help the governments provide more timely and coherent information on what crosses their national borders. The intended outcome is the successful implementation of the pilot electronic data exchange, making possible in the future more complete electronic exchange of data among all Parties, to be undertaken by their respective governments.

Task 2: The direct outcome of this component will be increased awareness

and knowledge of the import and export requirements by the regulated community on issues regarding the trade in hazardous waste and other chemicals within North America. This can help promote better compliance and more coordinated actions between governments on outreach efforts to importers and exports. In addition to helping promote compliance, this can help contribute to greater policy coherence and the more efficient use of governmental resources. The intended outcome will be achieved once the website is updated, pursuant to input received from the compliance assistance workshop.

Task 3: The direct outcome of this component will be the increased awareness and knowledge of the import and export requirements for hazardous waste and ozone-depleting substances by government inspectors and officials. The final outcome is governments that are better able to respond to import and export violations while facilitating legal trade. The intended outcome will be achieved once the courses are devised and handed over to the governments, which will administer and develop any necessary performance indicators.

Task 4: The direct outcome of this component will be an agreement between the Parties for identifying and sharing information on noncompliant imports entering North America. The task will lead to increased capacity by the Parties to address threats from outside of North America. This component is in a scoping phase during 2008 and the agreement will address intermediate and final outcomes.

Task 5: The direct outcome of this component will be an increased awareness and understanding of how the three legal systems in North America address environmental violations, with a particular emphasis on building capacity for enforcement of environmental laws in Mexico. The intended outcome will be to strengthen cooperation on the development and enforcement of environmental laws, regulations, procedures, policies and practices within the civil society in Mexico and between the Parties.

Timetable and Project Sustainability

Task 1. CEC involvement in this component will terminate once common data standards have been finalized and a pilot project succeeds. Once established, the governments will be responsible for further implementation. It is an easy and fast way to share information between policy-makers (or

authorities), enforcement areas and customs. It facilitates trade and inspection, and sharing of timely information between countries, and enhances security at the borders. It is expected that a pilot project will be feasible in late 2008 or in early 2009. The CEC may act as a forum for the continued assessment of the effectiveness of the electronic exchange of information.

Task 2. CEC involvement in this component will terminate once the final updates to the website <www.bordercenter.org> have been made. This is expected to occur in late 2008. The Parties will be responsible for providing updates to the content of the website. The CEC may act as a forum for the continued assessment of the effectiveness of shared efforts within North American to address compliance assistance issues regarding the import and export of environmentally regulated materials.

Task 3. CEC involvement in this component will terminate once the ozone depletion and hazardous waste courses are finalized and handed over the governments for implementation. The ODS course should be completed in early 2008 and the hazardous waste course in early 2009. The CEC may periodically assess the need for direct capacity-building courses in these areas and may act as a forum for the Parties' efforts to jointly improve their border training efforts.

Task 4. The scope and duration of the CEC's involvement in this component will be determined during the scoping phase in 2008.

Task 5. CEC's involvement in this component was initially proposed as continuing through 2008. Summary of materials will be shared with the governments and the appropriate judicial institutes and bar associations, as well as be posted on CEC's website. The CEC will assess the need for future capacity building involving the Parties' effective enforcement of environmental laws.

Communications

The project has communications elements embodied throughout, including providing a better understanding of the issues inherent in the safe and efficient movement of goods and materials across our borders, and the importance to our economic, health and environmental well-being. Providing information to trade and border officials, partners and the private sector in a credible and transparent manner is expected to lead to improved compliance

with relevant environmental laws.

Three distinct audiences are envisaged in relation to this project: participants/government agencies; private sector (commercial trading community); and the public. Each has specific communications needs, requiring distinctly different materials. At the implementation stage, training materials and models are the key elements required for participants and government agencies; as appropriate, project-specific CEC materials may complement various agency communications with private-sector audiences; and finally, more general public education on the part of the CEC can complement—from an international perspective—other national initiatives.

Note that there is high and established interest on the part of public and commercial/private-sector audiences when these issues entail security, conservation and/or cost issues. To the extent these initiatives and outputs contribute to the achievement of broad objectives concerning Smart Borders and the trilateral Trade and Security agenda as articulated at the North American Leaders' summit in Montebello, Quebec (August 2007), the potential exists to amplify awareness and uptake of this information.

General communication materials (including project fact sheets and public outreach products) will serve to describe the project's integrity and to make clear the CEC's contribution to this trilateral effort. Component and training materials require a common project overview and common CEC identification.

Information Management

Task 1: The CEC has undertaken a project to develop common intergovernmental data standards which, once developed, would support a completely electronic process of tracking the export requests and import consents, one component included in the importation and exportation of hazardous wastes and hazardous recyclable materials. To minimize the effort associated with the development of these data standards, and to ensure that the standards developed are harmonized with international data standards, this project is being developed in coordination with a UN/Cefact (United Nations Centre for Trade Facilitation and Electronic Business) project that is developing similar electronic exchange standards. Government experts are providing the technical advice required to describe, model and restructure the process in which the data exchange currently occurs for the transboundary

shipments of hazardous waste in North America.

Task 2: Portions of the online training tools may be hosted on the CEC website as public learning tools, but the hosting and maintenance of the

courses will be managed individually by the governments.

Implementation Plan

PROJECT 6 – Trade and the Enforcement of Environmental Laws						
Objective – 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						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. To develop the common data standards needed to eventually convert from paper-based to electronic-based exchange of hazardous waste export/import data and other information on North American environment-related trade data Electronic exchange data will be easily integrated into a single window in each country.	Final common North American data standards and the initiation of a pilot project to electronically exchange hazardous waste export requests and import consents information, and one workshop to determine how to implement the pilot project.	Late 2008 or early 2009	The direct outcome of this component will be the electronic exchange of hazardous waste export request and import consent information between governments. This will reduce government administrative burdens, improve data quality, make it easier to provide data to environmental enforcement and border protection agencies, facilitate the adoption of emerging tracking technologies and help the governments provide more timely and coherent information on what crosses their national borders.	This project will benefit government agencies that are responsible for approving imports and exports of hazardous waste and those agencies responsible for compliance monitoring of these shipments.	\$60,000	The CEC may act as a forum for the continued assessment of the effectiveness of the electronic exchange of information, and to assess the plan for a pilot project.
1.1 Hazardous Waste Task Force meeting of the Information Technology specialists to finalize the compiled data dictionary and compare with the UN-CEFACT (TBG) 13 Model <i>This activity was previously planned for 2007 and will occur in February 2008.</i>	Meeting of Party experts A merged data dictionary to prepare the common data standards	February 2008	Electronic exchange of hazardous waste export request and import consent information between governments.	This project will benefit government agencies that are responsible for approving imports and exports of hazardous waste.	\$10,000	

PROJECT 6 – Trade and the Enforcement of Environmental Laws						
Objective – 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						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
2. To improve compliance assistance information for the import and export of environmentally regulated materials	A compliance assistance workshop to receive input from key stakeholders on the current hazardous waste compliance assistance website at < www.bordercenter.org >. Inputs will be used to provide updates and improvements to the website and for the development of additional compliance assistance information on ozone-depleting substances and other chemicals.	2008	The direct outcome of this component will be increased awareness and knowledge of the import and export requirements by the regulated community on issues regarding the trade in hazardous waste and other chemicals within North America. This can help promote better compliance and more coordinated actions between governments on outreach efforts to importers and exports. In addition to helping promote compliance, this can help contribute to greater policy coherence and the more efficient use of government resources. The intended outcome is achieved once the website is updated, pursuant to input received from the compliance assistance workshop.	This project will provide benefits to those involved in the trade of environmentally regulated materials and to those potentially affected by the unlawful trade in these goods. There will also be a larger societal benefit from helping the governments of North America work together to ensure the accuracy and timeliness of trade-compliance information.	\$40,000	The CEC may act as a forum for the continued assessment of the effectiveness of shared efforts within North America to address compliance assistance issues regarding the import and export of environmentally regulated materials.
3. To develop training material for customs and other law enforcement officials	Final ODS online training course as well as the final prototype of an on-line hazardous waste course.	ODS course in 2008, followed by hazardous	The direct outcome of this component is the increased awareness and knowledge of the import and export requirements for hazardous waste and ozone-depleting	This project will provide benefits to those involved in monitoring trade and to the larger	\$60,000	The CEC may periodically assess the need for direct capacity-building courses in these

PROJECT 6 – Trade and the Enforcement of Environmental Laws						
Objective – 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						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		waste prototype in 2009	substances by government inspectors and officials. The final outcome is governments that are better able to respond to import and export violations while facilitating legal trade.	public that may be affected by trade-related environmental issues.		areas and may act as a forum for the Parties' efforts to jointly improve their border training efforts.
	Quality Assurance Summary <i>Electronic information product:</i> ODS on-line training course (Module 1 only)	Stakeholder/Expert review: October 2007 Party review–Drafting: October 2007 Party review–Quality assurance: December 2007 Publication: February 2008				
4. To address international threats from non-compliant imports entering North America	The development of a process for identifying and sharing information on non-compliant imports entering North America and addressing issues of common concern. There will be four scoping meetings.	The initial scoping effort will be finished in 2008.	The direct outcome of this component will be an agreement between the Parties for identifying and sharing information on non-compliant imports entering North America. It will lead to increased capacity by the Parties to address threats from outside of North America. This component is in a scoping phase during 2008 and the agreement will address intermediate and final outcomes.	This will benefit not only government law enforcement officials but also consumers and users of products and goods.	\$45,000	Future CEC activities will be based on the initial scoping effort in 2008.
5. To build capacity in legal and judicial systems to support effective	Delivery of training course on principles	2008	The direct outcome of this component will be an increased	Government officials, bar	\$75,000	CEC's involvement in

PROJECT 6 – Trade and the Enforcement of Environmental Laws						
Objective – 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						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
enforcement of environmental laws	of environmental enforcement for judges, environment ministry officials, and prosecutors in Mexico.		awareness and understanding of how the three legal systems in North America address environmental violations, with a particular emphasis on building capacity for enforcement of environmental laws in Mexico. The final outcome is to strengthen cooperation on the development and enforcement of environmental laws, regulations, procedures, policies and practices within the civil society in Mexico and between the Parties.	associations, judicial institutes, and non-governmental organizations		this component was initially proposed as continuing through 2008. The CEC will assess the need for future capacity building involving the Parties' effective enforcement of environmental laws.
Total 2008: \$290,000						
Completion of 2007 outputs (publishing, translation, editing and layout of documents/information products submitted for QAPP review prior to 31 December 2007): \$15,000 QA #07.61-Innovative methods for securing compliance with environmental laws QA #07.62-Finalize web-based portal on legal mechanisms for exchanging information between countries QA #07.63-Background paper on the judiciary and environmental law						
Performance Measurement Indicators: - For each of the tasks, the intended outcome is achieved once the courses or materials are completed. - Surveys will be given to course participants and the CEC will compile information on the numbers of individuals attending workshops, trainings and courses. The governments will administer and develop any necessary performance indicators in					Key Partners: The bar associations, nongovernmental organizations and judicial institutes in the three	

PROJECT 6 – Trade and the Enforcement of Environmental Laws						
Objective – 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						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
accordance with their own internal guidelines for any courses and materials for which they assume possession. Efficiency of information-sharing can be partially measured by looking at the frequency and extent of information exchanges between governments concerning noncompliant imports, compliance data and environment-related trade data.					countries	

Project 7 Enhancing North America Air Quality Management	Responsible Project Manager at the CEC Secretariat Orlando Cabrera-Rivera
Planned Allocation C\$360,000	Working Group(s) associated with this work North American Air Working Group

Objective of Project

The main objective of this project is to provide a more complete North American picture of air quality and air emissions, which will support decision-making on air quality management. This will be accomplished by identifying air quality related information and capacity needs of the Parties; helping to ensure that the capacity exists to develop comparable air quality related information and programs for North America; developing information products to identify emerging trends and issues; and informing decisions relevant to the shared environmental interests of the Parties.

Background

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 trans-border air quality planning, and 2) enhancing the public availability of air emissions information in North America.

The CEC carried out extensive work in the years 2003 and 2004 in promoting the development of North American air emissions inventories by supporting Mexico's first national air emissions inventory in ways that meet Mexico's planning needs, as well as having direct applications to trans-border air quality planning. The first Mexican National Emission Inventory was completed in October 2006, and included emissions of criteria air pollutants for the year 1999.

In 2007, the Parties convened the North American Air Working Group (NAAWG) to review the current air quality work and to formulate a comprehensive vision for enhancing North American Air Quality Management for 2010–2015. The vision was presented to the Council at the

June 2007 Council Session in Morelia, Mexico. The Council endorsed the vision and directed the NAAWG to develop the implementation strategy for cooperation on air quality as outlined in the 2010–2015 North American vision that was presented. The vision involves two fundamental components of information for air quality management for the CEC's work in 2008: assessment of current inventory data and programs in the three countries and activities necessary to make data accessible and comparable; and assistance to the Parties in the development of comparable emissions inventories. The development of Mexico's first national air emissions inventory, supported by the CEC, was an important step in this regard. Working with Mexico to assist in the update of inventories must also focus on building capacity for Mexico to provide inventory updates in 2010–2012 and beyond in such a manner as to allow for the creation of a comprehensive and coherent North American picture.

Rationale

Differences in capacity to collect air emissions information can hinder the development of the North American air quality and emissions picture. However, there is common recognition that emissions monitoring and inventories have the highest priority for cooperative work to provide a more complete picture of North American air quality and air emissions. Consequently, the momentum is strong for developing common methods and techniques and capacities for estimating air emissions, and for managing the collected information in a manner that improves its accessibility to the Parties and the public.

The activities involved in this project are consistent with the specific priorities linked to fulfilling the 2005–2010 Strategic Plan and to developing a 2010–2015 Strategic Plan, and with the Councils' directive on air quality. Furthermore, they complement the Security and Prosperity Partnership

commitments to share air emissions information trilaterally and to collaboratively reduce air pollution.

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 control strategy options. Coupled with air quality modeling, emissions inventories can help identify important source regions that affect air quality in downwind and cross border locations. They also provide the public with basic information on local air quality and the environmental performance of emission sources located in their communities.

Capacity Building – While Canada and the United States are currently able to manage air issues using comparable methods and information, Mexico still lacks the capacity to do so. Comparable emissions inventory and reporting efforts are essential for the creation of a comprehensive and coherent North American picture. For instance, even though Mexican emission inventories were completed fairly recently, data used to populate them are now outdated. It is critical, therefore, to begin updating Mexico's National Emissions Inventory, using methodologies consistent with those of Canada and the United States. Working with Mexico to develop the updated inventories must also focus on building capacity for Mexico to provide inventory updates in 2010–2012 and beyond. As an example, the mobile sources inventory must be updated to take into account the growth in the number of vehicles and consequent increase in emissions, as well as to employ updated and consistent models and methodologies. Additionally, Mexico recently enacted law to phase in the introduction of ultra-low sulfur diesel fuel, beginning with the border area in 2007, and moving to major cities and the rest of Mexico in 2009. The time then is ripe to update Mexico's inventory to enable decision makers to develop appropriate strategies.

Activities and Outputs:

- With the assistance of a contractor, conduct a comprehensive study to: 1) assess the current state of each of the three countries' emissions inventories and networked monitoring systems, including available data, methodologies, emissions addressed, databases, electronic analytical capability and electronic accessibility to related information; and 2) recommend tasks, infrastructure, and associated resources necessary to achieve comparability among the three

countries' systems, at both the individual and three-country level, and provide a roadmap, with suggested timelines, for carrying out the recommendations.

- Update components of the 2006 Mexico National Emissions Inventory (MNEI), using comparable tools and methodologies to those used in the United States and Canada, and build capacity to ensure Mexico's ability to update its inventories. These components include: mobile source emissions estimation, Mobile6 adaptation, Mobile PM_{2.5} factors, and update of point, area and natural sources. This task should be completed by the end of 2008. The updated inventory will be fully completed in 2009. The resulting products of this effort will be: 1) the establishment of a process to gather the base-level activity data necessary to estimate air emissions, 2) a database of customized emissions factors, 3) a quality assurance/quality control plan for emissions inventory development, and 4) an emissions inventory database.
- North American Air Work Group (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, offer guidance and strategies for improvement, set priorities, and review relevant project documents and deliverables.
- The NAAWG and Secretariat collaborate to draft the initial North American Air Quality Strategy for 2010–2015, based on the Air Vision approved by the Council and on the Parties' priorities, as well as recommendations from the study related to inventory and ambient air monitoring work outlined in the Vision.

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

- Comprehensive assessment of current data and programs related to the inventories and ambient monitoring objectives for each of the three countries, and fully defined tasks, infrastructure and associated resources necessary to achieve comparability among the three countries' systems.
- Completion of major components of the updated Mexico NEI, as specified under "Activities and Outputs" above.

Intermediate Outcomes:

- Infrastructure that allows the three Parties to exchange information and work cooperatively in addressing issues related to emissions monitoring and inventories, which will inform air management strategies.

Final Outcomes:

- Development of and access to comparable air quality management information.
- Similar emissions inventory development schedules.
- A more complete North American picture of air quality and air emissions that will support decision-making on air quality management.
- Capacity to enhance the comparability and synchronicity of monitoring and emissions inventory information collection and analyses by following agreed upon standards, protocols, and procedures.

Performance Indicators:

- Completion of the following portions of Mexico's NEI: mobile source emissions estimation, Mobile6 adaptation, mobile emissions factors for PM_{2.5}, inventory update for point, area, and natural sources, and capacity building to make these portions of Mexico's emissions inventories sustainable.
- Completion of study identifying key activities, infrastructure and associated resources necessary to achieve comparability among the three countries' inventory and ambient air monitoring systems.
- Completion of initial draft of 2010–2015 North America Air Quality Strategy document.

Timetable and Project Sustainability

The final timetable and schedule of deliverables for the project will be determined following discussions with the NAAWG. The work for 2008, which will be built upon in 2009, will provide a foundation for the efforts to be taken under a North American Air Quality Strategy for 2010–2015.

Communications

Communications and outreach will depend on progress in updating the emissions inventories and will be complemented by the Parties' air experts as part of their overall strategy for air quality activities.

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 and a roadmap to collecting comparable information for trilateral access and analysis. The study and resulting recommendations of key activities, infrastructure and resources necessary to achieve such comparability will help to inform this effort.

The project also involves the development of electronic databases that will allow the efficient storage of and access to national air quality information. The study recommendations with regard to infrastructure will assist in addressing the necessary information technologies with which to achieve and maintain comparability. Capacity building will include technical assistance and training related to developing such databases. This aspect of the project is also instrumental in any future production of timely and relevant publications and reports, web and mapping applications, and for use in other CEC initiatives.

Additional details related to information management will be developed following discussions of the North American Air Working Group.

Implementation Plan

PROJECT 7 – Enhancing North America Air Quality Management						
Objective – Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Prepare comprehensive study identifying current inventory and ambient monitoring data and programs of the three countries, recommending key activity areas/tasks, necessary infrastructure and associated resources to achieve comparability, and providing a roadmap to carrying out the recommendations.	A roadmap for carrying out recommended key activity areas/tasks and infrastructure necessary to achieve comparability among the three countries' inventory and ambient air monitoring systems, as well as outlining the associated necessary resources. Guidance for development of the 2010–2015 Strategic Plan for Air Quality	May 2008	Supporting information for the development of the Strategy document	US EPA, Environment Canada, Semarnat	\$65,000	Use roadmap as input in moving toward achieving comparability and building capacity.
2. Complete specified portions of the update of Mexico's 2005 National Emissions Inventory	Updated MNEI for: - mobile source emissions estimation - Mobile6 adaptation - mobile source	December 2008	Comparable point and mobile source emissions inventories for a common base year	US EPA, Semarnat, Environment Canada, academic and research institutions, North American local, state and regional environmental protection agencies, indigenous/tribal/first nation governments or	\$285,000	

PROJECT 7 – Enhancing North America Air Quality Management						
Objective – Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	PM2.5 factors • point sources • area and natural sources			agencies, and the general public.		
3. North American Air Working Group (NAAWG) and Secretariat collaborate, through regular meetings and conference calls, in reviewing and monitoring the progress of the projects, assessing current and future project needs, information and suggestions for improvement, setting priorities, and reviewing relevant project documents and deliverables	Efficient and effective implementation of Air Vision and related projects		Efficient and effective achievement of CEC air quality objectives and goals	Environment Canada, Semarnat, US EPA	\$5,000	
4. NAAWG and the Secretariat collaborate to complete initial draft of North American Air Quality Strategy	An initial draft of the Strategy, which will comprehensively describe the steps, activities, tasks, projects and	December 2008	Progress towards the efficient and effective achievement of CEC's vision for air quality	US EPA, Semarnat, Environment Canada	\$5,000	Initial draft of North American Air Quality Strategy to be reviewed by Alt. Reps and GSC; final strategy to be drafted, completed and submitted to Council in 2009

PROJECT 7 – Enhancing North America Air Quality Management						
Objective – Develop the information needed to describe the state of the North American environment and to identify emerging trends and issues						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	timelines of trilateral air quality work to be completed during the 2010–2015 time frame					
Total Cost: \$360,000						
Performance Measurement Indicators: Completion of the following portions of Mexico’s NEI: mobile source emissions estimation, Mobile6 adaptation, mobile emissions factors for PM _{2.5} , and inventory update for point sources. Completion of study providing a roadmap of key activities, infrastructure, and associated resources necessary to achieve comparability among the three countries’ inventory and ambient air monitoring systems. Completion of initial draft Strategy document.						Key Partners: US EPA, Semarnat, Environment Canada, INE, CEC

Project 8	Sound Management of Chemicals	Responsible Project Manager at the CEC Secretariat	Luke Trip
Planned Allocation	C\$552,000	Working Group(s) associated with this work	Sound Management of Chemicals Working Group

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.”

A new direction was proposed in 2006 when the CEC Council directed SMOC to present the proposed realignment at the 2008 Council meeting for approval. This new direction focuses on strategies to catalyze cooperation (SCC) in the following four areas: reducing risks in chemicals of mutual concern; improving environmental performance of specific sectors of concern; building a foundation for chemicals management; and, enhancing regional environmental monitoring and assessment. These areas are compatible with the Dubai Declaration on a Strategic Approach to International Chemicals Management (SAICM) and encompass the direction of the SMOC program along with an emphasis on: stronger outreach to stakeholders as partners; aligning North American priorities; and, the establishment of stronger linkages with key international initiatives, such as the Security and Prosperity Partnership, (SPP), SAICM, and World Summit on Sustainable Development (WSSD) 2020.

Background

- Council Resolution 95-05 made the development of North American Regional Action Plans (NARAPs) for certain persistent and toxic substances a priority for the CEC. It also established a working group composed of two senior officials selected by each Party whose duties pertain to the regulation or management of toxic substances and who were tasked to work with the CEC to implement the decisions and commitments set out in the Resolution. Over the next

several years, work on finalizing the current NARAPs under development will continue, as will the SMOC Working Group’s role in advising the Council and the Parties on the implementation of existing NARAPs. In addition, in accord with Council Resolution 06–09, (on Advancing the Work of Resolution 95-05), the CEC has begun formulating a new strategy for the sound management of chemicals, with the aim of developing a North American *chemicals management agenda*.

- 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 consideration of the August 2007 announcement during the North American Leader’s Summit of regulatory cooperation in the area of chemicals.
- A major part of the new strategic direction of the SMOC Working Group is the emphasis on continual input by stakeholders on current or future initiatives. The key stakeholders/organizations that will actively participate in the SMOC work are expected to be from industry, academia and ENGOs in all three countries.
- The SMOC Working Group and its subsidiary task forces responsible for delivering NARAPs and other specified projects will continue to operate. The active NARAPs have either an implementation task force or a development task force that is charged with moving the initiative forward. Each Task Force is composed of at least two government representatives from each country, one from the environmental sector and one from the health sector. Other projects, with the concurrence of the SMOC Working Group, will benefit from participation of experts designated by the

Parties, organized by the Secretariat and under the guidance of a designated chairperson.

For more information please go to the following link:

<http://www.cec.org/programs_projects/pollutants_health/project/index.cfm?projectID=25&varlan=english>.

Rationale

- The CEC SMOC initiative is concerned with minimizing the risks of human and environmental exposure to *chemicals in use*, or previously used in and traded as products (e.g., mercury, lindane); *categories of chemicals* including those produced as unintentional byproducts from disposal of traded products (e.g., dioxins and furans); and *industry sectors and technologies* common to the three countries (e.g., automotive, electronics). In general terms, the SMOC initiative endeavours to reduce risk of exposure to toxic chemicals in trade, and minimize long-range atmospheric and aquatic transport of chemicals across borders. To this end, the CEC facilitates discussion, coordination and mutual assistance among the three Parties.
- The SMOC project supports *Information for Decision Making, Capacity Building, and Trade & Environment* as described in the *2005–2010 Strategic Plan*.
 - The information obtained will help policy makers decide on options for managing chemicals of mutual concern. The information looks to help the Parties make trilateral decisions on the various aspects of risk surrounding the chemicals of concern.
 - Capacity will be strengthened by increasing the comparability, reliability, relevance and availability of data and information in toxic chemicals in the North American environment. The three Parties will have extensive information which will provide options help make decisions regarding the sound management of chemicals.
 - The SMOC project supports *Trade and Environment* as described in the *2005–2010 Strategic Plans*. 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.

- The SMOC project continues to be a key initiative of the Parties. The North American approach for sound management of chemicals has been exemplary in other international forums and provides a venue for both disseminating and collecting information of importance to the Parties respecting domestic and international initiatives.

Activities and Outputs

- The key activities will be aligned with the new SCC direction. These activities will include work ongoing from the specific chemical focused vision initially required by Council as well as incorporation of the new direction. These include: implementation of for the SMOC project; for the mercury and lindane NARAPs; development and implementation of the dioxins, furans and hexachlorobenzene (D/F/HCB) risk reduction initiative; strengthening linkages between SMOC and Trade and Environment activities; as well as creation of the new path forward through the development and implementation of the new strategies for catalyzing cooperation; a priority being the establishment of a national chemicals inventory for Mexico.
- The SMOC Working Group will also present this new direction to Council in 2008.
- Target groups of the SMOC initiative include the health and environmental agencies of the three Parties and the stakeholders in all the three countries including industry, academia, ENGOs, indigenous communities and the general public.
- Partners who will participate with the implementation of the SMOC initiative include Health Canada, Environment Canada, the US EPA, and Mexico's Semarnat, INE and Salud. Stakeholders who will participate in the implementation will be determined on a case-by-case basis once the new initiatives within SMOC's new direction are determined.

Associated outputs and products include:

- review and translation of the NARAP assessment document (to be completed in December 2008);
- a multi-hospital workshop in Mexico to reduce the risk of

mercury exposure (early 2008);

- a workshop on analytical capabilities and sources of dioxins and furans (January/February 2008);
- a workshop for long-range transport modeling for dioxins and furans or a sector-specific air monitoring exercise (September 2008);
- development of a national chemicals in-use inventory for Mexico, including comparability with ongoing inventory programs in Canada and the United States; and
- other capacity building projects developed as a result of emerging priorities during late 2007 and early 2008.

Anticipated Outcomes and Performance Indicators

Direct Outcomes

Increased awareness of impacts from toxic substances on human health and the environment. Greater appreciation of the resource needs and the commitment of the public and private sectors to reduce risk of exposure.

Intermediate Outcomes:

- Benefits and changes include: greater awareness of capacity building needs for reducing the risk of exposure to toxic substances; policies and programs implemented by the Parties to reduce the exposure to and danger from dioxins and furans, mercury and lindane; and increased capacity of the Parties to make decisions on the sound management of chemicals.
- Greater appreciation of resource requirements for developing sustainable programs.
- An understanding of the potential risks of lindane exposure as a consequence of the presence of the toxicant in dairy products in Mexico.
- Reduction in the use and exposure to mercury in hospitals, particularly in Mexico.

Final Outcomes:

- Reduction in risk of exposure to the priority toxic substances.

- Improved sustainability of the infrastructure, nationally and trilaterally, for managing the environmental and human health exposures to toxic substances.
- Promotion of regional programs on a more international scale as examples of successful initiatives to reduce risk of exposures.
- A chemicals inventory for North America that shares compatibility across the region.
- An electronics sector that is aware of and taking actions to reduce usage and disposal of toxics through substitution and through better waste reduction and management initiatives.

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. Therefore, many performance indicators would come from the Environmental Monitoring and Assessment project. The NARAP assessment document has been created to aid in determining the success of the various NARAPs and the changes in exposure potential since their creation. Many workshops and projects will be seen as successful if overall program sustainability is achieved—in other words, if the project or necessary capacity building is continued by the Parties or stakeholders.
- Success will also be manifested in the improved environmental policies that result from scientifically validated information being utilized by decision makers

Timetable and Project Sustainability

- This project is assumed to be ongoing. The mercury NARAP is projected to close in 2010, the lindane NARAP is projected to close in 2016 and, upon acceptance, the dioxins, furans and hexachlorobenzene initiative is projected to close in 2014.
- The North American *chemicals management agenda* for the sound management of chemicals will encourage creation of new initiatives which will support new work not currently envisioned, and with varying timelines.

- Annual stakeholder meetings with the Parties will ensure that dialogue is maintained between the Parties and stakeholders. New actions can continue to be catalyzed if this dialogue is combined with regular meetings and conference calls of the SMOC Working Group and its Task Forces.
- Sustainability is a key aspect of all projects within SMOC. When a project commences, its objectives are to attain sustainability of the various capacity building aspects.

Communications

Recognizing the new direction of the SMOC initiative, the outreach methods and material will be re-examined and reformulated to reflect the proposed path forward and continue to encourage a greater participation and communication with the stakeholders. The SMOC Working Group proposes to conduct its annual stakeholder meetings in geographic regions where there are facilities or stakeholders that have specified interest in the program and could benefit from engagement in closer proximity to the area of concern.

Council will be briefed and approval will be requested at their 2008 session for the proposed new direction of the SMOC initiative and stakeholders will be provided with current factual information summarizing the new direction as well as successes of the past.

The SMOC Working Group has a well-established relationship with its stakeholders and seeks to enhance their engagement in current and future activities. This will be achieved through stakeholder participation at the level of project implementation; development of outreach materials; organizing public sessions at SMOC meetings; requesting holding joint meetings with other CEC groups; and participating in conferences and workshops organized by others.

All projects contain communications strategies as an integral component of their actions. Education is a critical component for the North American public to understand and make informed decisions about environmental choices. Each initiative will highlight how it can best focus the efforts of the Parties to communicate essential information about toxic substances, the sectors of concern and the work of the CEC to the public. Project implementation groups will work with the Secretariat and its Communications department to disseminate information generated from actions of the NARAPs to the scientific community, stakeholders and the

public

Information Management

Work under the SMOC initiative lends itself to production of NARAPs, technical reports and working papers to direct activities of the Task Forces, and as well to provide information or recommendations to the Parties. These documents undergo extensive intergovernmental, public and peer reviews, depending on the nature of the document. Most data generated via the NARAPs is of a technical nature and requires manipulation through statistical analysis and trends development, as applicable. It is anticipated that there will be a need to provide electronic storage and retrieval mechanisms for items such as an updated inventory of mercury emissions in Mexico. Information products and reports developed through the SMOC initiative will be available in electronic format on the CEC website.

Other Information

This version of the operational plan reflects the consensus decisions of the SMOC Working Group following the meeting of its national leaders in Brandywine PA, USA, 3–5 October 2007. Of particular note is the realignment of the SMOC program priorities according to the concept areas considered to be the focal area of the program. Four main areas of work have been proposed, including:

1. Develop and implement a sustainable approach to monitoring, including bio-monitoring;
2. Establish a foundation for chemicals management in North America;
3. Reduce the risk from chemicals of concern to North America; and
4. Improve environmental performance of sectors.

Of these four areas, the first, relating to monitoring, applies in particular, but not exclusively, to the Environmental Monitoring and Assessment project. The other three can be considered to focus on areas for the SMOC project. The SMOC Working Group also agreed that communications and outreach should be a guiding principle of the program and thus allocated part of the operational plan to this important effort. Program operations also need to be appropriately funded in order for the Parties to meet and discuss the SMOC initiative in a collaborative and transparent manner.

Implementation Plan

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1 SMOC Working Group Operations	1.1 Conduct annual SMOC Working Group (WG) meeting with stakeholders to enable final presentation of new strategies and the agenda in advance of the Council session. Approximately 40 people will attend and 25 to 30 of them will be supported by the CEC.	A renewed agenda for SMOC developed by the SMOC WG and will be reviewed by stakeholders in March and presented to Council in June 2008	March	A path forward for development of new strategies for NA chemicals management.	US EPA, Semarnat, Cofepris, EC, HC, SAICM (UNEP), general public and all stakeholders, including industry, academia and NGOs	\$90,000	Annual face-to face meetings between the Parties and its stakeholders. Implementation of the path forward, as well as monthly conference calls
		Quality Assurance Summary <i>Background paper:</i> New Approach to North American Chemicals Management	Secretariat review: December 2007 SMOC WG: January 2008 Party review–Drafting: February 2008 Public review: March 2008 Party review–Quality assurance: April 2008 Publication: July 2008				
	1.2 Conduct face-to-face SMOC WG Planning Session to guide implementation of NARAPs and other activities, and to continue developing the	Revised SMOC initiative, focusing on sectors, and chemical groups	Monthly conference calls and September meeting	Implementation plan for the renewed SMOC initiative	US EPA, Semarnat, Cofepris, EC, HC	\$18,000	Face-to-face meeting and conference calls to develop path forward for the SMOC and EM&A program Implementation of the path forward

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	agenda for the renewed SMOC direction.						
2 Outreach and Engagement	2.1 Workshop to improve outreach and engagement among the various stakeholders and national officials, respecting toxic substances and focusing on Mexico’s international commitments and SMOC linkages	Capacity building workshop on improving outreach and engagement between specific sectors, stakeholders and national officials	May–August	Improved outreach and engagement strategies for delivering information to the public and keeping industry and the public apprised of North American chemicals management initiatives. Promotion of a workshop in 2009 to expand understanding of chemicals management priorities in the region.	US EPA, Semarnat, Salud, Sagarpa, EC, HC, the Secretariat, general public and all stakeholders	\$28,000 (will be conducted simultaneously with a similar effort in the EM&A project)	An annual or biennial workshop as determined by changes in North American and international chemicals management strategies A more extensive workshop in 2009, looking at HPV chemicals, greening of chemistry and risk assessments of emerging toxics
3 Foundation Development	3.1 Developing a uniform NA inventory of toxic chemicals by building capacity in Mexico to identify and quantify such substances Canada and the USA will provide technical assistance in such a manner that Mexico is able to develop its unique national inventory while permitting comparison to US	Foundational capacity building, main aspect of one of the proposed areas of work: “Establishment of a Foundation for Chemicals Management Across North America,” eventual creation of a chemicals inventory for Mexico	Jan–Dec	Preliminary foundation for a chemicals inventory for Mexico with technical assistance from Canada and the United States	Semarnat, Cofepris, Sagarpa, <i>Sec. del Trabajo y Previsión</i> (STPS), US EPA, EC, HC, SAICM (UNEP), industry and general public in Mexico, but also in all North America	\$100,000	Support for the next 2–4 years to bring the project to completion and become self-sustaining

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	and Canadian inventories						
4 Reduce Risks from Chemicals 4.1 Initiation of work on polybrominated diphenyl ethers (PBDEs) as a group of chemicals	4.1.1 Begin implementation of projects on PBDEs	Assessment of mutual concern for managing this group of substances in North America	July–Dec	Provision of direction on reduction in environmental and health risks	US EPA, Semarnat, Cofepris, EC, HC, general public and all stakeholders, including industry, academia and NGOs	\$15,000	Based on assessment of mutual concern by the Parties, a path forward for reducing risk over the next 2–4 years
4.2 Mercury NARAP Implementation	4.2.1 Conduct meeting of the Mercury Task Force by teleconference to advance mercury-related activities	Continued implementation of mercury reduction initiatives as outlined in the Council-approved NARAP	Jan–Dec	Continued successful mercury reduction initiatives	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat	\$11,000	The following years will continue with the pattern of holding a face to face meeting every two years. Next face-to-face meeting to take place in 2009. In 2009: Mercury Task Force Close-out report will include Task Force activities and recommendations for outstanding NARAP actions and ongoing monitoring. Report will highlight the lessons learned through the Hg NARAP and provide recommendations for any follow-up activities, if required.
	4.2.2 Capacity building The Task Force will	Multi-hospital workshop on reducing the risk of Hg	Jan–Dec	The project will reduce the risk of Hg exposure in Mexican healthcare sector and eliminate some Hg	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, hospitals in Mexico,	\$50,000	The Hg TF will assist Mexico in developing a sustainable program in this area and linking the

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	continue implementing a project with Health Care Without Harm to reduce risk of exposure to Hg in the hospital sector. A national workshop will be created as part of the project.	exposure in hospitals	Jan–Dec	emissions to the North American environment	Central and South American countries and the general public in Mexico along with the hospital staff	\$50,000	initiative to the US EPA/American Hospital Assoc. MOU and similar Canadian health care Hg programs.
		Quality Assurance Summary <i>Report:</i> Report on project to reduce Hg use in hospitals	Secretariat review: October 2008 Stakeholder/Expert review: October 2008 Party review–Drafting: November 2008 Party review–Quality assurance: November 2008 Publication: February 2009				
	4.2.3 Mercury-containing products inventory The Task Force will update Mexican inventories for mercury based on new information available	A report quantifying products that contain mercury and potential reduction scenarios	Jan–Dec	A report on Hg containing products in Mexico	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, and North American public	\$23,000	The Hg TF will work to encourage Mexico’s continued refinement of the inventory similar to US and Canadian exercises
		Quality Assurance Summary <i>Report:</i> Mexico Mercury Market Report	Secretariat review: November 2008 Stakeholder/Expert review: December 2008 Party review–Drafting: January 2009 Party review – Quality assurance: February 2009 Publication: April 2009				
4.3 Lindane NARAP Activities	4.3.1 The Lindane Task Force will implement activities, review and prioritize	Face-to-face meeting and continued implementation	April	A path forward for future Lindane Task Force activities will result	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat	\$28,000	The following years will continue with the pattern of holding a face-to-face meeting every two years.

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
4.3 Lindane NARAP Activities	projects under the NARAP	of lindane reduction initiatives as outlined in the Council-approved NARAP	April	Election of chairperson(s) to be finalized, project priorities promoted	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat	\$28,000	Next face-to-face to take place in 2010
		Quality Assurance Summary <i>Background paper:</i> Reduction of Lindane Usage in China and its Impact Globally and on North America	Internal review: December 2007 Party review–Quality assurance: January 2008 Publication: March 2008				
	4.3.2 Capacity building under the lindane NARAP: projects to be prioritized by the Lindane Task Force (anticipate dairy products)	Project to support Mexico’s capacity building as determined at the next meeting of the TF	Jan–Feb	Reduction in environmental and health risks (anticipate support for lindane in dairy products to ensure database information)	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat	\$15,000 Proposed \$20K funding from EM&A activity 9.4.5 will augment this project.	Continuation of capacity building
4.4 Dioxins/Furans/Hexachlorobenzene NARAP Activities	4.4.1 The D/F/HCB Task Force will review the current draft NARAP and develop a document which incorporates	Advice to Council and subsequent face-to-face meeting for implementation	Jan–Sept	Confirmation of the change in direction for the SMOC program by Council Reduction in	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat	\$28,000	Upon advice to and concurrence of Council, the task force will continue to meet and discuss the path forward to reduce risk of exposure

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	the proposed activities of the NARAP into the new SMOC strategy.	of the D/F/HCB risk reduction program		environmental and health risks. A path forward for future D/F/HCB implementation team activities will result.			to D/F/HCB
	4.4.2 Capacity building Conduct a workshop with North American experts to transfer technology on D/F/HCB emissions control to Mexico. This will be a large workshop focusing on analytical issues for the first two days followed by a workshop on sources. D/F/HCB will initiate a sector-specific pilot project in Mexico to control and reduce emissions of dioxins and furans.	Development of expertise to control emissions by a specific sector for D/F/HCB	January Feb–Dec	A successful workshop will enhance Mexican capacity to implement risk reductions through controlling D/F/HCB emissions. Reduction in emissions from an industrial sector in Mexico to be used as a case study for minimizing environmental and health risks.	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat Approximately 30 people will attend and 15-18 of them will be sponsored by the CEC	\$38,000	The D/F/HCB TF will determine whether follow up projects or workshops are necessary on the subjects covered Continuation of the project
		Quality Assurance Summary <i>Background paper:</i> Reducing Dioxins, Furans and Hexachlorobenz	Secretariat review: December 2008 Stakeholder/Expert review: January 2009 Party review–Drafting: February 2009 Party review–Quality assurance: March 2009 Party clearance: April 2009 Publication: June 2009				

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		ene emissions in a specific sector in Mexico					
	4.4.3 Capacity building Conduct a workshop to build capacity for atmospheric modeling of Stockholm chemicals using D/F/HCB as candidate substances	A workshop to exchange information and enhance Mexico’s expertise in modelling techniques and methodologies	Jan–Dec	Increased capacity to model and predict sources and receptors of Stockholm chemicals, with an emphasis on D/F/HCB information collected from the six monitoring stations being deployed.	Semarnat, Cenica, INE US EPA, EC, HC	\$15,000 To be combined with \$10K from EM&A project, task 4.3	Integrated scientific dialogue and tracking of pollutants over North America
	4.4.4 Capacity building In collaboration with Health Canada and Environment Canada experts, conduct a workshop on risk assessment methodologies and techniques	Improved capacity to conduct and interpret results of risk assessment initiatives	Sept–Dec	Training of personnel in Mexico respecting methodologies and techniques related to risk assessment	Semarnat, INE, Salud, Mexican officials in other related disciplines and the public	\$15,000	Development of more refined training as complexities of risk assessment are integrated into Mexican chemicals management programs
		Quality Assurance Summary <i>Background paper:</i> Risk Assessment Methodologies	Secretariat review: November 2008 Stakeholder/Expert review: December 2008 Party review–Quality assurance: January 2009 Party clearance: March 2009 Publication: April 2009				
5 Regional Monitoring	5.1 Review, revise and bring to conclusion NARAP assessment project	Document posted on the CEC website describing current status	Jan–Feb	Review and translation of final draft of the synthesis and assessment report and final data tables.	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, the general public and all stakeholders	\$10,000	This will bring to conclusion a project that was initiated in 2004 The EM&A Standing

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
5 Regional Monitoring	Secretariat will coordinate preparation of a document describing reduction of risks associated with NARAP chemicals	and potential successes of NARAPs	Jan-Feb		US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, the general public and all stakeholders	\$10,000	Committee will assess audit and oversight mechanism to ensure sustained success of the program or alert the Parties to emerging concerns
		Quality Assurance Summary <i>Report:</i> Synthesis and assessment of NARAP Implementation Report	Secretariat review: March 2008 Stakeholder/Expert review: April 2008 Party review–Drafting: May 2008 Party review–Quality assurance: June 2008 Publication: August 2008				
	5.2 Promote the EM&A approach to regional environmental monitoring, including continued development of the Proname initiative and a regional human biomonitoring workshop	A Mexican monitoring network consisting of key index sites and satellite sites	Jan–Dec	Program for ensuring chemicals of trilateral concern are analyzed, reported and compared in a consistent and comparable manner	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, general public and all stakeholders through a) Regional human biomonitoring workshop (\$20K) b) Promotion of regional environmental monitoring (\$25K)	\$45,000	Long-term, sustainable monitoring of toxics in North America
		Quality Assurance	Secretariat review: April 2008				

PROJECT 8 – Sound Management of Chemicals							
Objective – Strengthen the Parties’ abilities to assess and manage chemicals of concern							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		Summary <i>Report:</i> Trinational report on first birth mothers	Stakeholder/Expert review: May 2008 Party review–Drafting: June 2008 Party review–Quality assurance: July 2008 Publication: September 2008				
		Quality Assurance Summary <i>Background paper:</i> Report on index and satellite sites	Internal review: March 2008 Party review–Drafting: April 2008 Party review–Quality assurance: May 2008 Publication: July 2008				
6 Improved Environmental Performance by Sectors	6.1 The SMOC WG and the T/E WG will continue implementing the agreed upon collaborative project for electronics sector and electronics waste management practices in NA.	Scoping reports will be submitted in Dec 2007. Implementation as determined by collaboration with SMOC and T&E group	Jan–Dec	Improved electronics sector performance in reduction of environmental and health risks	US EPA, Semarnat, Cofepris, EC, HC, the Secretariat, the electronics sector, general public and all Stakeholders	\$23,000 [should be combined with \$30,000 from T&E]	Evaluations to determine next steps. Continued work in this sector to improve production and waste disposal practices of this sector
Total Cost: \$552,000							
Performance Measurement Indicators: Results will be continually monitored through the EM&A project and through feedback from the Parties and stakeholders.				Key Partners: SMOC Working Group and its Task Forces (Mercury; Lindane; Dioxins, Furans and Hexachlorobenzene)			

Project 9	Monitoring and Assessing Pollutants across North America	Responsible Project Manager at the CEC Secretariat	Luke Trip
Planned Allocation	2008: C\$284,530	Working Group(s) associated with this work	Environmental Monitoring and Assessment Standing Committee

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 toxic substances 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. It will also help advance the Parties' shared international objectives, including those under the *Strategic Approach to International Chemicals Management* (SAICM) as well as consideration of the August 2007 announcement of the North American Leader's Summit on the Security and Prosperity Partnership (SPP) for regulatory cooperation in the area of chemicals.

The 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. The focus of the project is to develop scientifically sound information for decision-makers and to build capacity through regional and international cooperation in efforts to measure, monitor and assess toxic substances across the continent.

Background

The project originates from the North American Regional Action Plan on Environmental Monitoring and Assessment (EM&A NARAP). The EM&A NARAP was created to assist the Working Group for the Sound Management of Chemicals (SMOC) and its Implementation Task Forces in meeting the environmental monitoring and assessment obligations identified and implied under Council Resolution 95-05 and/or in substance-specific NARAPs developed pursuant to that Resolution. Resolution 95-05 directed the

development of North American Regional Action Plans (NARAPs) for certain persistent and toxic substances. This Resolution also established the Sound Management of Chemicals Working Group and several Implementation Task Forces charged with implementing the decisions and commitments set out in the Resolution, on behalf of the Council.

Currently under development is an Information Road Map, which will outline how the SMOC Working Group will achieve its information goals for the next ten years. The Information Road Map will set priorities for work under the Monitoring and Assessing Pollutants across North America project, largely related to the development of a regional and sustainable approach to monitoring and bio-monitoring.

- A major part of the *cooperative strategy* for the sound management of chemicals is an emphasis on the expert input by stakeholders on current or future initiatives. The key stakeholders/organizations who will actively participate in the EM&A work are projected to be mainly those in academia, industry and ENGOs from all three countries. The EM&A Standing Committee will coordinate with other international, regional and national government agencies with relevant expertise.
- Co-chaired by representatives of the three Parties, a Standing Committee oversees and assists in the implementation of work under the EM&A NARAP and related tasks within the project. Over the next few years, the Standing Committee will concentrate not only on the implementation of the EM&A project but will also assist the SMOC Working Group in developing its information priorities to 2020.

For more information please go to the following link:

<http://www.cec.org/programs_projects/pollutants_health/project/index.cfm?projectID=25&varlan=english>.

Rationale

The EM&A project is linked to Information for Decision-making through its mandate for improving monitoring, modeling and research on a North American scale, to assess the progress of the CEC's SMOC initiative, but also to continuously improve the availability of information for decision-making at many levels. Thus, this project supports and contributes to other priorities of the CEC and the Parties, including the incorporation of environmental data into the North American Atlas and the assembly of data for development of viable indicators for state-of-the-environment reporting.

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 unacceptably high risks to the environment, to ecosystems, to human health and to sustainable development. Convenient and dependable access to and dissemination of relevant, reliable and comparable monitoring information, along with sound interpretive assessments based, in part, on that information are crucial to the confirmation and quantification of progress made. Mexico identified as a national priority the development and implementation of a national monitoring initiative. The availability of such information is important for risk analysis, risk assessment, risk management and the communication of risks to targeted groups and the general population.

A cooperative regional approach to monitoring is critical to understanding short- and long-range transport mechanisms of chemicals in air and water and to monitoring emissions from chemicals and products in trade throughout their life cycles. 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 monitoring provides more robust information about long-term trends in substance levels and allows for the detection of changes.

Activities and Outputs

Principle outputs from this project include: further development and implementation of an integrated trilateral monitoring network; promotion of sustainable environmental monitoring and human bio-monitoring infrastructure in Mexico; and, submission of a funding proposal to an

international funding institution (IFI).

Information about current monitoring activities of the substances covered by North American Regional Action Plans (NARAPs), as well as other PBTs monitored within these networks, will be compiled and a report issued.

Multiple trilateral monitoring initiatives will be developed and undertaken. These will include, amongst others, a pilot trilateral monitoring project of PBT levels in biota. In addition, the EM&A Standing Committee will work with NARAP Task Forces to develop and implement projects to monitor dioxins and furans, lindane, and mercury. Data from these projects will support development of maps of baseline levels of persistent toxic substances.

More details are provided in the Implementation Plan.

Target groups

The Parties, more specifically their health and environmental agencies.

Partners/Stakeholders

Members of task forces or working groups:

For Canada: HC, EC, Fisheries and Oceans Canada (FOC), NRCan

For Mexico: Semarnat, Profepa, *Secretaría de Salud* (Salud), *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación* (Sagarpa)

For the United States: CDC, US EPA

Indigenous governments and their organizations, as well as stakeholders in academia, industry and NGOs.

Associated outputs/products (including timelines for completion)

- A comprehensive report, based on work completed in 2007 (gray literature studies) will present, summarize and analyze information about levels of PBTs in Mexico and identify information gaps, December 2008.
- A synthesis and assessment report regarding the change in status and trends of the current status and distribution of the NARAP chemicals in the major components of the North American ecosystem and the threat they pose to North American environmental and human health. This report will be drafted in the 2007 fiscal year, but will be reviewed by the Parties in 2008; the final report is expected in June

2008.

- A proposal for a Mexican environmental monitoring and human bio-monitoring program (*Programa Nacional de Monitoreo y Evaluación de México*—Proname) will be presented to an international funding institution, May 2008.
- Selection of NA index sites, collection of data from monitoring programs, focusing on data from the United States and Canada in a compatible format with the NA Environmental Atlas, December 2008.
- A synthesis of current monitoring information in the three countries, February 2008.
- A comprehensive report on mercury in fish from the Lake Zapotlán watershed, Mexico, July 2008.
- Quality assurance/quality control (QA/QC) report on blood POPs analysis, December 2008.
- Guidance document for trilateral bio-monitoring exercise, December 2008.
- Workshop on communication strategy on POPs in Mexico, including dioxins/furans, August 2008.
- Workshop on dioxins/furans modeling, June 2008.
- Report on assessment of lindane in Mexican dairy products, December 2008.
- Synthesis of information on mercury fish tissue studies, December 2008.

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

First-level effects of the outputs include: improved understanding; increase in environmentally beneficial behavior; capacity building; and international cooperation in efforts to measure, monitor and assess persistent and toxic substances across the continent.

Intermediate Outcomes:

A link to this CEC project will be supplied through the Proname initiative. While Mexico has capability to monitor and analyze PBTs, there is an identified need to strengthen its institutional capacity to monitor these chemicals on a sustained, long-term basis. Successful adoption of a national environmental monitoring and assessment infrastructure would provide valuable information for decision makers to make sound environmental decisions, thereby helping Mexico to meet its obligations under the Stockholm Convention. Benefits and changes resulting from this project include increased comparability, reliability, relevance and availability of data and information on toxic substances in the North American environment.

Final Outcomes:

The information generated through the project will provide the national governments and stakeholders with meaningful insight into the levels and impacts of contaminants in North America, thereby assisting policy-developers to focus on priorities for reducing environmental impacts. It will also lead to greater policy coherence.

Performance Indicators:

- Results from QA/QC round-robin procedures (capacity building).
- Harmonization of information collected in the three countries, consecutive to the involvement of different governmental officials through Working Group and Task Force.
- Inclusion of the Proname initiative in Mexico's Stockholm Convention national implementation plan (NIP) report.
- Increased availability of reliable data on toxic substances in North America.

Timetable and Project Sustainability

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.

Annual 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, catalyzation of new actions can be maintained.

Upon initiation of a specific project, objectives are set to attain sustainability in all aspects of capacity-building projects.

Communications

The SMOC working group has a well-established relationship with its stakeholders, and seeks to enhance their engagement in current and future activities. The EM&A initiative benefits directly from this relationship. This will be achieved through stakeholder participation at the levels of project implementation; 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.

The success of this project depends upon developing and maintaining public support and continuing support from the monitoring and scientific communities. Communication through the release and dissemination of results, progress summaries, educational material and contributions to other outreach products, will encourage this support. Public consultation events, sponsored by the Standing Committee and the Sound Management of Chemicals 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 may be of a technical nature and require assessment through statistical analysis and trends development, electronic storage and retrieval mechanisms will be required. A great deal of the data is intended to be amenable to mapping and, thus, comparability and compatibility is of paramount importance. Presentation of the data in a North American context is of particular interest so that mapping and GIS referencing can be facilitated.

The accessing of outside funding may require sharing of information with agencies such as the World Bank, the Pan American Health Organization (PAHO), the Global Environment Facility (GEF) and other international funding institutions (IFIs), in order to fulfill contractual partnership agreements.

Other Information

This version of the operational plan reflects the consensus decisions of the SMOC Working Group following its national leaders meeting in Brandywine PA, USA, 3–5 October 2007. Of particular note is the realignment of the SMOC program priorities according to the concept areas considered to be the focal area of the program. Four main areas of work have been proposed, as follows:

1. Develop and implement a sustainable approach to monitoring, including bio-monitoring.
2. Establish a foundation for chemicals management in North America.
3. Reduce the risk from chemicals of concern to North America.
4. Improve environmental performance of sectors.

Of these four areas, the first, relating to monitoring, applies in particular, but not singularly, to the Environmental Monitoring and Assessment project. The other three can be considered to focus on areas for SMOC project. The SMOC WG also agreed that communications and outreach should be a guiding principle of the program and thus allocated part of the operational plan to this important effort. The operation of the program also needs to be appropriately funded in order for the Parties to meet and discuss the SMOC initiative in a collaborative and transparent manner.

Implementation Plan

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. EM&A Standing Committee Operations	1.1 Addressing North American needs for environmental monitoring and assessment (EM&A)	The EM&A Standing Committee will meet once a month via conference call to review projects undertaken and rank projects for future implementation. One face-to-face session will be held every other year.	Jan–Dec	Assessments of work completed and a continuing dialogue for future North American EM&A activities Will lead to an increased awareness and knowledge; an optimal use of resources and a greater policy coherence	US EPA, CDC, SFEI, Semarnat, <i>Instituto Nacional de Ecología</i> (INE), Cenica, HC, EC	\$55,000	Monthly conference call meetings
2. Outreach and engagement	2.1 Workshop to improve outreach and engagement among various stakeholders and national officials respecting toxic substances and focusing on Mexico's international commitments and SMOC linkages	Capacity building workshop on improving outreach and engagement between specific sectors: stakeholders and national officials	May–August	Improved outreach and engagement for delivering information to the public and keeping industry and the public apprised of North American Chemicals management initiatives	US EPA, Semarnat, Salud, Sagarpa, EC, HC, indigenous governments and their organizations, the Secretariat, general public and all stakeholders	\$20,000 (may be conducted simultaneously with a similar effort in the SMOC project # 12)	A workshop annually or biennially as determined by changes in North American and international chemicals management strategies
	2.2 Addressing toxics and contaminants from an indigenous and local community context	The SMOC WG, EM&A SC and the PRTR officials will work collaboratively to address toxics and contaminants concerns of indigenous and local communities. The next		The project will enhance the environmental management capacity of indigenous people of North America and further promote indigenous and local people's involvement in the	Indigenous governments and their organizations, US EPA, EC, HC, Semarnat, Salud		Continuation of outreach and communications with affected communities.

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		SMOC WG public meeting will consider locating in the vicinity of interested indigenous communities		CEC program.			
3. Foundation Development	3.1 Pilot project: <i>guidance document for trilateral bio-monitoring exercises</i>	Document to provide guidance on round-robin QA/QC; analytical data management and other quality assurance issues, including facilitation of customs clearance.	Jan–Dec	Increased knowledge; optimal use and resources and improved validity and reliability of data are expected.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$20,000	Continued exercises in improving reporting and comparability of data.
		Quality Assurance Summary <i>Background paper:</i> Guidance document for trilateral bio-monitoring exercises	Secretariat review: June 2008 Stakeholder/Expert review: June 2008 Party review–Drafting: July 2008 Party review–Quality assurance: September 2008 Publication: December 2008				
	3.2 Pilot project: <i>QA/QC exercise for blood POPs analysis (with a focus on Mexico)</i>	Capacity building project among various laboratories and reference standard validation facilities, primarily in Mexico	Jan–Dec	Validation of laboratory capacities through improved comparability and reliability of data.	US EPA, CDC, Semarnat, INE, EC, HC	\$25,000	Continued improvement in laboratory capacity and result reporting.
4 Reduce Risk of Chemicals	4.1 Pilot project: <i>Assessing mercury exposure risk in the Lake Zapotlán watershed, Mexico</i> Seed money to initiate a pilot	A report will be provided at the end of the project	Jan–Dec	This project will provide information to all three North American countries about the levels of mercury in various media, resulting in new data for Mexico that is comparable to data from	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$10,000	The CEC will continue to seek to benefit from external but pertinent projects being resourced by others, such as

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	trilateral monitoring program to monitor levels of PBTs in biota			the US and Canada, thereby improving the understanding of levels of PBTs across the region and greatly increased information for decision-making in Mexico.			academia, through addition of seed funding.
	4.2 Dioxins and furans: <i>air monitoring project</i> Continuation of dioxins and furans air monitoring and analysis, pending securing outside funding.	Continued CEC assistance with the new 7 station D/F network in Mexico and initiation of linkages to similar US and Canadian data	Jan–Dec	Data generated from these 7 monitoring stations and from similar networks in Canada and the United States will be assembled in a format compatible with the North American Environmental Atlas and/or for use in standard Geographic Information System platforms.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$15,000	Sustainable integration of D/F monitoring into Mexico's priorities
	4.3 Dioxins and furans: emissions modeling workshop	Conduct a workshop with the North American experts on long-range transport modeling together with SMOC Approximately 30 people will attend and 15-18 of them will be supported by the CEC.	March	This workshop will enhance Mexican capacity in long range transport modeling	US EPA, CDC, Semarnat, Cenica, EC, HC	\$10,000 Plus \$15K from the SMOC, project, task 4.4.3	Modeled emissions from Mexico, Canada and United States to form part of the North American mapping report
	4.4 Mercury project The SMOC Mercury Task Force will work with the EM&A SC to implement trilateral monitoring	Several fish tissue studies will be consolidated and data assessed for gaps in knowledge of mercury in fish. A report focusing on the Mexican situation is expected	Jan–Dec	Increased awareness and knowledge; improved understanding of an environmental challenge; optimal use of resources and greater policy coherence are expected	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$10,000	A comprehensive report, to be revised every 3 years

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	and assessment projects related to mercury.	Quality Assurance Summary <i>Report:</i> Report on mercury levels in fish	Secretariat review: August 2008 Stakeholder/Expert review: August 2008 Party review–Drafting: September 2008 Party review–Quality assurance: October 2008 Publication: December 2008				
	4.5 Lindane monitoring project: dairy products Seed money provided by CEC to catalyze contributions from other agencies and interests.	A pilot project on lindane levels in dairy products, identified by the Lindane TF and EM&A SC will be implemented. Dairy products targeted as an indicator of children’s environmental health	Jan–Dec	Increased awareness and knowledge; improved understanding of priorities for lindane elimination	INE, Semarnat, Cofepris, UNEP, WHO	\$20,000 See also SMOC project, task 4.3.2	Information to be developed for use by Mexico in its submission for Lindane inclusion in the Stockholm Convention
5. Regional Monitoring Development and implementation of an integrated North American contaminants monitoring network to produce comparable and compatible data	5.1 Promotion of sustainable monitoring and assessment infrastructure in Mexico	Drawing on the Grey literature study, “Priname scoping study,” identification of monitoring and analysis infrastructure in Mexico, and Assessment of NARAP Implementation report.	Jan–Dec	The activities within this task will collectively contribute to the development of a NA regional monitoring network. With an emphasis on baseline information in Mexico.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC.	\$30,000 [total of 5.1 to 5.4	A comprehensive report, to be revised every five years, will present, summarize and analyze information about levels of PBTS and identify information gaps.
		Quality Assurance Summary <i>Report:</i> Report on sustainable monitoring and assessment infrastructure	Secretariat review: March 2008 Stakeholder/Expert review: March 2008 Party review–Drafting: April 2008 Party review–Quality assurance: May 2008				

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		in Mexico	Publication: July 2008				
	5.2 Grey Literature Synthesis report	A comprehensive report will summarize existing information about PBTS in Mexico.	January	Information currently residing in institutions, academic libraries and state archives will be assessed for information on Mexican PBTs	Mexico, CEC, stakeholders		This work forms part of the information required for the Proname exercise.
		Quality Assurance Summary <i>Report:</i> Grey Literature Synthesis report	Secretariat review: March 2008 Stakeholder/Expert review: March 2008 Party review–Drafting: April 2008 Party review–Quality assurance: May 2008 Publication: July 2008				
	5.3 Proposal for a Mexican environmental monitoring and human bio-monitoring program	Refinement of a proposal for a Mexican environmental monitoring and human bio-monitoring program, to be presented to an international funding institution.	Jan–Dec	This proposal will be based on outcomes of the 2007 science experts’ workshop and the 2007 policy leaders’ workshop, including Mexicans, Americans and Canadians with monitoring and policy expertise.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC.		Proposal to be submitted in 2008 and if accepted, work will continue to implement such monitoring program
	5.4 Promotion of a Mexican national monitoring and assessment program to IFIs	Promotion of Mexico’s national monitoring and assessment program for funding by IFIs.	Jan–Dec	Funding to support environmental improvements that will be encountered on a long-term basis through collection of verified scientific information.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC		IFI proposal to be submitted in 2008 and if accepted, work will continue to implement such a monitoring program

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	5.5 Analysis of data comparability	Collection and harmonization of data from NA index sites and monitoring programs, focusing on data from the United States and Canada Data will be collected and provided for a common “knowledge base related to PBTS contaminants” for the NA region, in a format compatible with the NA Environmental Atlas and/or use in standard Geographic Information System platforms.	Jan–Dec	Increased awareness and knowledge; environmental improvements; optimal use of resources and greater policy coherence are expected.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$30,000	Continued work on this project as a resource to the Environmental Atlas and SOE report of the CEC
	5.6 Biological monitoring meeting <i>This activity was previously planned for 2007 and will occur in January 2008. It is a key component of the Proname initiative and constitutes one of the critical aspects for the proposal to international funding agencies that is currently being developed and that will allow Mexico to support the Proname initiative.</i>	Meeting to help Mexico set priorities for investigation and action and to provide information on status and trends to be collected, synthesized and effectively delivered supporting timely, informed policies and actions.	January	Background document to support the development of Proname initiative Recommendations for North American index and satellite sites background document [Quality Assurance Summaries for these outputs are included in the SMOC project description, task 5.2.]	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$7,530	

PROJECT 9 – Environmental Monitoring and Assessment							
Objective – To assist the Parties in increasing the comparability, reliability, availability of data and assess trends and concerns related to contaminants and stressors affecting environmental and human health in the North American environment.							
2008 Tasks	Subtask	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	5.7 Proname workshop <i>This activity was previously planned for 2007 and will occur in February 2008. It is a key component of the Proname initiative and constitutes one of the critical aspects for the proposal to international funding agencies that is currently being developed and that will allow Mexico to support the Proname initiative.</i>	Following on the 2007 science experts workshop, North American monitoring and assessment experts will meet with Mexican policy leaders to secure support for and commitment to long-term environmental monitoring and human bio-monitoring and assessment infrastructure in Mexico; 40-50 people are expected to attend the meeting, with 10-20 receiving some financial support.	February	The workshop will result in secure commitments from Mexican leaders from multiple departments for long-term support for a national monitoring program. These outputs will be included in a proposal for a Mexican environmental monitoring and human bio-monitoring program presented to an international funding institution.	US EPA, CDC, Semarnat, INE, Cenica, EC, HC	\$32,000	
Total 2008: \$284,530							
Performance Measurement Indicators: Results will be continually monitored through the EM&A Standing committee. - Results from QA/QC, round-robin procedures will be indicators of direct outcomes for capacity building of analytical procedures. - Harmonization of information collected in the three countries will be indicators of intermediate outcomes. - Increased availability of reliable data on toxic substances in NA will be an indicator of intermediate outcomes.				Key Partners: SMOC Working Group and its Task Forces EM&A Standing committee			

Project 10	Tracking Pollutant Releases and Transfers in North America	Responsible Project Manager at the CEC Secretariat	Orlando Cabrera-Rivera
Planned Allocation	C\$526,000	Working Group(s) associated with this work	NAPRTR Officials

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

Began in 1996, the CEC's North American Pollutant Release and Transfer Register (NAPRTR) project initiative has been one of the key components of the CEC's ongoing work on pollutants and environmental health. The PRTR project collects and analyzes information from the PRTR programs in Canada, Mexico and the United States on the amounts, sources, and handling of toxic chemical releases. This information 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 over the Internet, through <www.cec.org/takingstock>.

The NAPRTR Officials Workgroup works on the implementation of the Action Plan to Improve the Comparability of PRTRs across North America, and seeks advice from experts and stakeholders on areas of study and analysis for the *Taking Stock* report.

Rationale

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

- Information for Decision-making—The annual publication of *Taking Stock*. Based on publicly available data from PRTR systems

in the three countries, this report offers comparative analyses and descriptions on the sources, amounts, and management of toxic chemicals from industrial activities in North America. The information in the report is made available in printed form and over the Internet at <www.cec.org/takingstock>. This project aims to provide information to support comparable environmental policies and practices throughout North America that promote reductions in pollutant releases from industrial activities. It also 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.

- 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 their PRTRs.

The importance of this project stems from the fact that it adds value and relevance to the goals of the existing PRTR systems in North America. It offers enhanced access to important information to all the stakeholders for use in addressing environmental issues of concern at the local, regional, national, and trinational levels. The project also fosters the communication and cooperation among the three Parties in working toward the institutionalization and improvements of their own PRTR programs. The creation of Mexico's RETC is one of the success stories associated with this project.

Activities and Outputs

The implementation of the PRTR project involves the activities listed below.

- NAPRTR Officials Workgroup—Organize regular meetings and conference calls with PRTR officials to review and monitor the progress of the project, discuss and assess the projects needs, offer guidance and strategies for improvement, set priorities, and review relevant project documents and deliverables.
- Capacity-building Activities—Work with officials on developing and implementing ways to increase comparability and consistency in the areas of data reporting, collection, and quality assurance.
- Data Collection and Analysis—Collect information from the PRTRs of the three parties, conduct data quality assurance reviews and analyses and incorporate results of relevance and use to the Parties and stakeholders in the *Taking Stock* report. One goal is to provide this information in a format suitable for use in Web and mapping applications (e.g., in accordance with NAAF guidelines).
- Information Management Infrastructure—Explore innovative ways to improve the process of gathering, storing, and accessing the NAPRTR data in order to increase its usefulness in existing or future projects or applications (e.g., Query Builder, Atlas Mapping, and ad-hoc reporting for CEC programs).
- Outreach—Organize the annual PRTR Consultative Group meeting, which provides feedback on *Taking Stock* and the PRTR project, and offers input into areas of focus and analysis for future reports.

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 needs of their respective PRTR programs.

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.

Final Outcomes:

- The final outcome of this project is the creation of an integrated North American PRTR program that supports the compilation and dissemination of quality, unbiased and comparable information. The ultimate goal of this program is that the use of this information results in positive actions such as informed policy decisions, cost-effective pollution prevention practices, and citizen awareness towards the reduction of hazardous substances released to the environment.

Performance Indicators:

- Consistency in reporting requirements across PRTR programs, as recommended in the Action Plan to Enhance Comparability of Pollutant Release and Transfer Registers.
- Time between data collection and final report distribution.
- Level of information use in decision-making process by stakeholders.

Comment: It may be necessary to conduct a survey to measure the reach (awareness) and usefulness of the final information.

Timetable and Project Sustainability

The NAPRTR project expects to achieve most of its goals in the next five to seven years. The sustainability of this project is possible due to its ability to demonstrate the relevance and usefulness of the information it provides, the success in the institutionalization of the RETC, the establishment of innovative ways to exchange the information, and the continuing cooperation of the PRTR officials. With a solid infrastructure in place, the project may go into a maintenance mode, in which monetary resources and the CEC's workload are significantly reduced. However, given the trilateral scope of the project, the coordinating role of the CEC will need to continue. The work

envisioned over the next two to three years should focus on:

- Continuing the effort to increase the comparability and consistency of the PRTR data. This may include the use of supplemental information collected by the Parties outside their PRTR programs.
- Expediting the data collection and analysis process to provide timely information.
- Improving reports and outreach products to increase relevance and usefulness of the information for the Parties and stakeholders.
- Developing performance measures to gauge the effectiveness of the program.

Communications

This project produces a number of valuable information resources and tools for the public, communities, and decision makers in North America. Decision makers may include environmental and trade policy developers and regulators at the federal, state/provincial, local, and tribal levels; nongovernmental organizations; academia; industry; and citizens. The project also expands the public access to information about how chemicals are managed within their communities, and seeks to stimulate reductions in pollutants by making factual information available to decision makers at all levels. The Parties and the CEC continually re-evaluate all projects and products to identify the key audiences and messages for each and to identify the most effective and streamlined outreach mechanisms for each audience.

Taking Stock is a flagship publication of the CEC, and is the primary communications vehicle for the PRTR project. A number of changes have occurred and more are contemplated, to improve the information provided to support decision-making by governments, industry, nongovernmental organizations, and the public. Some examples are the streamlining of the printed *Taking Stock* report and the enhancement of *Taking Stock Online*.

Additional effort will be put towards information management, outreach and

stakeholder briefings to ensure the most thorough and informed consideration of the CEC's PRTR project and annual *Taking Stock* reports.

Information Management

Currently, *Taking Stock* information appears in two forms. One is an annual publication of approximately 150 pages, comprising text tables and figures, that compares comparable release and transfer data a number of different ways, e.g., by country, state or province; by chemical; and by media (air, water, land). The second form is through the electronic Web-based *Taking Stock Online* (accessible via the CEC website), which enables users to analyze the data through a searchable format. The CEC reviews and analyzes the basic data that are provided by each government. Through this analysis, the CEC extracts the data that are comparable; thus, the matched data set is a subset of the overall data provided by the governments. The matched data set is downloadable through the *Taking Stock Online* website. Future work includes re-designing the electronic database, upgrading and improving the functions of the online query builder, and ensuring the operational continuity of the database (currently provided and maintained by a contractor). This will enable users to do faster searches, obtain graphical representations of the data (graphs and thematic maps), conduct analyses and access more data online, thereby reducing the size of the printed version of *Taking Stock*. The intent is to increase the capacity and robustness of the online database in order to streamline the printed report, and in turn enhance the ability to disseminate and communicate this information.

While these approaches meet the need of getting information out to the public, there are additional ways of displaying the data, e.g., a geographic information system (GIS), the North American Atlas, etc. The national PRTR data currently include latitude/longitude data. Therefore, there is ample opportunity to apply new tools to make these data even more meaningful to interested parties.

Implementation Plan

PROJECT 10 – Tracking Pollutant Releases and Transfers in North America						
Objective – Make environmental information more widely available in order to facilitate local, national and regional action						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Complete data collection and trilateral analysis for <i>Taking Stock</i> 2005	A comparable and matched data set using the 2005 reporting year PRTR data from the Parties. This data set will become the basis for the <i>Taking Stock</i> report.	Dec 2007–Mar 2008 (contingent upon timely reception of Mexico's data—t.b.d.)	Assessment of and recommendations for improvements in data comparability.	This information will assist Mexico's RETC, the US TRI program, and Canada's NPRI program in the evaluation of their data-reporting activities.	\$51,000	
2. Complete and publish <i>Taking Stock</i> 2005.	A North American comparative analysis of PRTR data to inform decision makers about the status, trends, and management of industrial pollutants. This information is available in printed form and online.	May	Dissemination of information for decision-making. Increase the public right-to-know 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.	General public, local and state/provincial governments, industry, and academic sectors, NGOs	\$110,000	
	Quality Assurance Summary <i>Report: Taking Stock</i> 2005	<i>Secretariat review:</i> Process begins with data collection from the Parties (Oct-Nov 2007). Consultants analyze the data, identify suspect data and establish matched data set. Follows review and corrections of key data elements (involving input from Parties). Writing begins in November. Target publication release date: late May 2008 <i>Stakeholder/Expert review:</i> The Special Feature Chapter is circulated to selected stakeholders/experts for a three-week review (Jan-Feb 2008) <i>Party review—Drafting:</i> Three-week Party review of Trilateral Data chapter and the Special Feature Chapter				

PROJECT 10 – Tracking Pollutant Releases and Transfers in North America						
Objective – Make environmental information more widely available in order to facilitate local, national and regional action						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
		(Jan-Feb 2008) <i>Public review:</i> The PRTR Consultative Group meets in November 2007 to discuss <i>Taking Stock</i> and advise on PRTR project priorities. <i>Peer review:</i> The methodology for the CEC data analysis was peer-reviewed in the early years of the project. The methodology has not changed. <i>Party review—Quality assurance:</i> Parties participate in a review of overall data after analysis by consultants, and can conduct Quality Assurance for identified suspect or erroneous data. The final <i>Taking Stock</i> report is provided to Parties six weeks in advance of release as an embargoed copy to give Parties time to prepare for publication (May 2008). <i>Party clearance:</i> Four-week advance copy of the <i>TS05</i> News Release <i>Publication:</i> Late May 2008				
3. Upgrade and enhance <i>Taking Stock Online</i> . Consult with Parties about enhancements to database design and 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.	Dec	Value-added information for the users, and more efficient access to the data.		\$50,000	
	Quality Assurance Summary <i>Ongoing Database/Online service: Taking</i>	- Extract data and prepare matched database (June-Dec 2008); - Prepare data for online Query Builder – including latitudes/longitudes amenable to mapping applications (Feb–May 2008); - Release data with publication of the <i>Taking Stock</i> report (May 2008).				

PROJECT 10 – Tracking Pollutant Releases and Transfers in North America						
Objective – Make environmental information more widely available in order to facilitate local, national and regional action						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	<i>Stock Online</i> (2005 data)					
4. Collect and interpret data for <i>Taking Stock</i> 2006	Development of a database of 2006 PRTR data from the Parties. A strategy for supplementing the NAPRTR data on pollutant releases and source information already collected by the Parties under other programs. Planning for <i>Taking Stock</i> 2006 report structure	Sept	A quality assured data set that to support the <i>Taking Stock</i> report and products. Recommendations of cost-effective actions to achieve data consistency		\$140,000	
5. Capacity building to synchronize and expedite the PRTR data-processing efforts. Work with Mexico to support expediting data processing time and to improve electronic RETC data transfer between state and federal agencies.	Expedite availability of data for analysis and quality assurance.	Ongoing	Provide timely quality information to stakeholders and decision makers.		\$70,000	

PROJECT 10 – Tracking Pollutant Releases and Transfers in North America						
Objective – Make environmental information more widely available in order to facilitate local, national and regional action						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
6. Present the NAPRTR efforts at USEPA International Emissions Inventory Conference; also at OECD to promote the North American approach to PRTRs. (also t.b.d.: present at the Annual Air and Waste Management Association meeting in Montreal, with focus on waste to energy technologies—May 2008)	Increasing visibility of the CEC, and enhancing outreach efforts of the NAPRTR	May–June		Environmental professionals, industry representatives, policy-makers, government representatives, international organizations	\$5,000	
7. Conduct stakeholder consultations through the annual PRTR Consultative Group meeting, which will be held in Mexico.	Receive input on potential focus area of <i>Taking Stock</i> 2007, and direction of PRTR project; Build capacity of Mexico's media and disseminate RETC and PRTR information to Mexican stakeholders.	Oct–Nov			\$100,000	
	Quality Assurance Summary <i>Background paper:</i>	<i>Secretariat review:</i> Oct–Nov 2008 <i>Party review—Drafting:</i> Two-week review by PRTR Officials, prior to the Oct–Nov 2008 meeting				

PROJECT 10 – Tracking Pollutant Releases and Transfers in North America						
Objective – Make environmental information more widely available in order to facilitate local, national and regional action						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	Discussion paper for annual Consultative Group meeting	<i>Public review:</i> The Discussion paper will be sent to the stakeholder group in advance of the Oct–Nov 2008 meeting, and will guide discussions during the meeting <i>Publication:</i> Prior to the Oct–Nov 2008 meeting				
Total Cost: \$526,000						
Performance Measurement Indicators: - Dates for release of RETC data and <i>Taking Stock</i> report. <i>Taking Stock</i> website statistics (access, documents requested). - Number of pollutants reported that are common to all Parties.						Key Partners: Key partners include PRTR officials from the three countries: Environment Canada, Mexico’s Semarnat, US EPA.

Project 11	Conserving Species and Spaces of Common Concern	Responsible Project Manager at the CEC Secretariat	Hans Herrmann
Planned Allocation	C\$220,000	Working Group(s) associated with this work	Biodiversity Conservation Working Group (BCWG)

Project Objective

The purpose of this project is to support the conservation of species and spaces of common North American concern by strengthening cooperation, enhancing local capacities and understanding the underlying pressures on North American Conservation Action Plan (NACAP) species and key marine habitats.

Background

Capacity building and training in support of conservation and maintenance of ecologically significant North American regions and species is one of six goals of the CEC's Strategic Plan for North American Cooperation in the Conservation of Biodiversity¹ (Biodiversity Strategy). Since 2003, government and NGO participants from Canada, Mexico and the United States have collaborated with the CEC to develop a framework of priority conservation areas (PCAs) on the Pacific coast and in the grasslands of North America, as well as six NACAPs for marine and terrestrial species of common continental concern.

Implementation of this project will be in partnership with government agencies, i.e., NOAA, Fisheries and Oceans Canada (FOC), Environment Canada (EC), Parks Canada, the *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), and various NGOs.

Important milestones of CEC engagement:

- June 1997—*Terrestrial Ecological Regions of North America* was published.
- October 1999—17 terrestrial species were chosen as species of common conservation concern.

- July 2002—16 Marine Species of Common Conservation Concern agreed upon by the three countries.
- April 2003—Priority Conservation Areas for Baja California to Bering Sea (B2B) region were identified.
- June 2003—Council adopted the Strategic Plan for North American Cooperation for the Conservation of Biodiversity.
- June 2004—marine and terrestrial species were selected for NACAP implementation.
- April 2005—a network of monitoring sites started being implemented in the B2B region.
- 2005–2007—the CEC implemented several wildlife training workshops in support of Mexico's decentralization initiative.

Rationale

This project constitutes pilot implementation of the Biodiversity Strategy in regions of high ecological significance.²

In 2008, the BCWG—with the support of the Secretariat—will review the progress and impact of all initiatives carried out under this project. These include training and the implementation of both the NACAPs and the North American Marine Protected Areas Network (NAMPAN). Moreover, advice will be provided to the CEC Council on the ecologically significant regions and species on which to focus its cooperative work. These ecologically significant regions and species should provide an opportunity to further integrate complementary work from other CEC program areas.

More generally, this project is linked to the fulfilment of the 2005–2010 Strategic Plan through the following:

¹ CEC. 2003. *Strategic Plan for North American Cooperation in the Conservation of Biodiversity*. <http://cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=1088>.

² See

<http://cec.org/programs_projects/conserv_biodiv/priority_regions/index.cfm?varlan=english>.

- Strengthening capacity, establishing a framework, and filling information gaps, for North American decision-makers to understand the underlying trade-related pressures on key habitat priority species, and ways to promote sustainable development activities for the region.
- Capacity-building activities, as outlined in the NACAPs, that will promote species conservation and sustainable economic activities in the region.
- The sharing of scientific information and expertise that can support and increase our knowledge of key habitats and priority species, sustainable activities, and the prevention and reduction of destructive practices.

Activities and Outputs

Key activities include the following:

- Training and developing capacities at the MPA level to assess the state of priority conservation areas, selected species, and environmental stressors.
- This training will be based upon continued implementation of the shared trilateral monitoring program for marine protected areas situated along the Pacific coast.
- Publication, pursuant to the NAMPAN initiative, of the first report on the state of marine biodiversity in Marine Protected Areas (MPAs) in the Baja-to-Bering (B2B) region. This report will provide policy-makers with the summary assessments required for policy development and to alert the public to ecosystem changes.
- The BCWG will hold the Second North American Roundtable on Biodiversity Conservation, to assess the effectiveness of the “Biodiversity Strategy” and its various initiatives and to set new courses and identify new priorities, selecting the ecologically significant regions and species on which to focus the CEC’s efforts.
- Training of Mexican fishermen in safe handling practices for de-hooking and disentangling leatherback turtles,³ to reduce the by-

catch of species of common conservation concern (SCCC) in artisanal fisheries.⁴

- Continue supporting field studies of pink-footed shearwater populations.
- Support the development of a SPLASH website for the humpback whale.

Target groups this project tries to influence include: conservation and wildlife authorities; resource managers; Marine Protected Area managers; NGOs; and the general public.

Partners/stakeholders participating in the implementation include: NOAA, FOC, Environment Canada, CWS, Parks Canada, the *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), and various NGOs.

Associated outputs/products include the following:

- First report on the state of marine biodiversity in MPAs in the B2B. A concise, scientifically sound report that can be accessed by decision-makers, scientists, managers and other stakeholders to promote conservation of priority conservation areas and species in the selected project areas.
- A clearinghouse and online database to store North American monitoring data collected at sister sites, and periodically display the results from the State of MPAs in B2B.
- Documents/reports pertaining to the implementation of the information component of the leatherback turtle NACAP.
- New data layers for inclusion in the CEC’s North American Data Atlas.
- Documents/reports pertaining to selection of ecologically significant regions and species.

Anticipated Outcomes and Performance Indicators

The desired outcomes of the project include:

Direct Outcomes:

³ In 2006, the CEC joined in partnership with Conanp and Defenders of Wildlife to implement three training workshops on sustainable fishing practices in three major shark-fishing ports: Mazatlán, Sinaloa; Manzanillo, Colima; Puerto Madero, Chiapas.

⁴ In 2006, the CEC partnered with WWF to assess the impact that artisanal fishing had on species of common concern to North America. That report also recommended further training activities for selected fishing communities of the Mexican Pacific Coast.

2008 Project Description

- Improved trinational collaboration on assessment and continuous environmental monitoring and reporting in the B2B.
- Improved experience on the implementation of the North American Conservation Action Plans.
- Discussions on the progress of existing biodiversity projects, including potential new regions and species on which to focus trilateral collaboration.

Intermediate Outcomes:

- Increased awareness and understanding of the condition of marine biodiversity and the underlying pressures it faces in the B2B.
- Implementation and adoption of strategies to address pressures to NACAP species.
- Increased awareness of the benefits of sustainable economic activities by the local communities.

Final Outcomes:

- A permanent, continental monitoring system for marine-coastal biodiversity for North America's B2B region.
- Adoption by fishermen and local and state governments, of effective strategies and programs to eliminate sea turtle by-catch.
- Effective incentives for local fishermen in Mexico to reduce the use of unsustainable fishing gears.
- Greater policy coherence and increased effectiveness on by-catch programs.
- Improved understanding of the migratory patterns and threats to the pink-footed shearwater.
- Increased collaboration and outreach for the identification of the migratory humpback.

Performance Indicators

- Number of MPAs in the B2B adopting the NAMPAN monitoring system, a suite of biophysical, and socio-economic indicators.
- Frequency with which the *sister* MPAs in the B2B report use the NAMPAN monitoring indicators and protocols.
- Completion of the first report on the state of marine biodiversity in MPAs in the B2B.

- Number of fisherman in pilot fishing communities participating in sustainable fishing practices.
- Number of tracked pink-footed shearwaters.

Timetable and Project Sustainability

- In 2009, NAMPAN will begin its transition from the B2B to another region of high continental significance, to replicate a similar model of trinational engagement.
- The B2B monitoring system will be strengthened during 2008; its continuity will allow for CEC to periodically report on the conservation conditions of this region. Arrangements for its maintenance and sustained financing will be made with partner agencies in 2008.
- In 2008, the BCWG will review existing biodiversity projects and develop short-term implementation plans for each of the NACAPs.

Implementation Plan

PROJECT 11 – Conserving Species and Spaces of Common Concern						
Objective –Strengthen cooperative conservation actions in North America by building synergies, enhancing local capacities, and understanding the underlying pressures on key habitat and priority species						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Publication of the first report on the state of marine biodiversity in Marine Protected Areas in the B2B, online and sections in hard copy	First report on the state of marine biodiversity in Marine Protected Areas in the B2B, a concise and scientifically sound report that can be accessed by decision makers, scientists, managers and other stakeholders to promote conservation of priority conservation areas and species in the selected project areas	Summer 2008	Improved trinational collaboration on assessment and continuous environmental monitoring and reporting in the B2B Increased awareness and understanding of the condition of marine biodiversity and underlying pressures it faces in the B2B	Marine Protected Areas and biosphere reserves in Mexico, including: Alto Golfo de California y Delta del Río Colorado Biosphere Reserve, El Vizcaino Biosphere Reserve, Islas del Golfo de California Wildlife Protection Area In Canada, National Marine Park, Pacific Rim National Park Reserve, among others Sanctuaries and National Parks in the US such as Channel Islands, Monterey Bay NMS, Olympic Coast NMS	\$50,000	T.b.c.
	Quality Assurance Summary <i>Report:</i> First report on the state of marine biodiversity in Marine Protected Areas in the B2B	Secretariat review: April 2008 Stakeholder/Expert review: April 2008 Party review–Quality assurance: April 2008 Publication: July 2008				

PROJECT 11 – Conserving Species and Spaces of Common Concern

Objective –Strengthen cooperative conservation actions in North America by building synergies, enhancing local capacities, and understanding the underlying pressures on key habitat and priority species

2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
2. Online clearinghouse to store monitoring data from sister MPAs in the B2B	North American clearinghouse and online database to store monitoring data collected from sister sites and periodically display the results on the state of MPAs in B2B	Summer 2008		MPA managers, superintendents; local and state resource managers in the three countries. Marine Protected Areas and biosphere reserves in Mexico, including: Alto Golfo de California y Delta del Río Colorado Biosphere Reserve, El Vizcaino Biosphere Reserve, Islas del Golfo de California Wildlife Protection Area In Canada, National Marine Park, Pacific Rim National Park Reserve, among others Sanctuaries and National Parks in the US such as Channel Islands, Monterey Bay NMS, Olympic Coast NMS	\$20,000	T.b.c.
	Quality Assurance Summary <i>Ongoing Database/Dataset:</i> Online clearinghouse to store monitoring data from sister MPAs in the B2B	Availability online: Summer 2008				

PROJECT 11 – Conserving Species and Spaces of Common Concern

Objective –Strengthen cooperative conservation actions in North America by building synergies, enhancing local capacities, and understanding the underlying pressures on key habitat and priority species

2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
3. Training workshop	Training program for practitioners responsible for the implementation of monitoring programs in sister sites	Fall 2008	Improved skills and tools to monitor and report on the condition of marine resources in the B2B	Ibid.	\$35,000	
4. Continued implementation of NACAP activities for the pink-footed shearwater and the humpback whale	Continue supporting field studies of pink-footed shearwater populations. Support the development of a SPLASH website for the humpback whale	Winter 2008	Increased sharing of scientific data, and public distribution of information on the conservation status, and threats to NACAP species (pink-footed shearwater and the humpback whale)	General public, and wildlife agencies, universities, research centers already involved in both NACAPs	\$30,000	T.b.c.
	Quality Assurance Summary <i>Electronic information product:</i> Prototype website in partnership with SPLASH to store and distribute monitoring data, and serve as an awareness/learning site	Availability online: Winter 2008				

PROJECT 11 – Conserving Species and Spaces of Common Concern

Objective –Strengthen cooperative conservation actions in North America by building synergies, enhancing local capacities, and understanding the underlying pressures on key habitat and priority species

2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
5. Workshop	Training of Mexican fishermen in safe handling practices for de-hooking and disentangling leatherback turtles to reduce the bycatch of SCCC in artisanal fisheries	Summer 2008	Increased local participation in sustainable fishing practices Increased knowledge and information on the conservation status, and threats to NACAP species	Mexican fishermen, decision makers, resource managers, general public	\$35,000	T.b.c.
6. Meeting	2nd North American Roundtable on Biodiversity Conservation: BCWG and biodiversity experts to review and set path forward for the implementation of the Biodiversity Strategy	Spring–Fall 2008	Decision on the new regions, and species to focus trilateral collaboration, and an integrated approach that benefits from CEC’s new Strategic Plan	Decision makers, resource managers, general public	\$50,000	T.b.c.
Total Cost:	\$220,000					

Performance Measurement Indicators: ▪ Number of MPAs in the B2B adopting the NAMPAN monitoring system, a suite of biophysical and socio-economic indicators. ▪ Frequency with which the “sister” MPAs in the B2B report using the NAMPAN monitoring indicators and protocols. ▪ Completion of the first report on the state of marine biodiversity in Marine Protected Areas in the B2B. ▪ Number of fisherman in pilot fishing communities participating in sustainable fishing practices. ▪ Increased effectiveness on by-catch programs, as measured by volume change in pilot fishing communities. ▪ Increased monitoring of pink-footed shearwaters. ▪ Improved coordination and outreach on the identification of humpback whales.	Key Partners: The BCWG; Doug Yurick, Parks Canada; Flavio Chazaro and Oscar Ramírez, Conanp; Joe Uravitch, Steve Gittings, Robert Brock, Elizabethann English, NOAA; Ken Morgan, EC; scientists and other relevant stakeholders
--	---

Project 12	Recovering the Vaquita and Promoting Sustainable Local Livelihoods	Responsible Project Manager at the CEC Secretariat	Hans Herrmann
Planned Allocation	C\$140,000	Working Group(s) associated with this work	Biodiversity Conservation Working Group (BCWG)

Objective of Project

The purpose of this project is to initiate North American cooperative efforts through the implementation of a North American Conservation Action Plan (NACAP), to eliminate incidental by-catch of vaquita (*Phocoena sinus*) and support Mexico's recovery strategy for this species.

The NACAP will support Mexico's strategy, forging a regional alliance to integrate and coordinate conservation and sustainable development initiatives to effectively stop vaquita by-catch, and promote sustainable livelihoods in the region.

Background

The vaquita is the smallest porpoise (1.5 m, 50 kg) endemic to the northern reaches of the Gulf of California, Mexico. Its known modern distribution encompasses a water surface area of only about 4000 km², which means that the total area where it may be found is far smaller than that of any other living species of marine cetacean. Its restricted distribution in a remote region where fishing is a primary economic activity makes the vaquita uniquely vulnerable.

More than 1600 small boats (pangas), using gill nets of different sizes, harvest shrimp and other 70 marine species in the region, including by-catch of vaquita. In 2003 the net earnings from fisheries of six species—shrimp, chano, curvina, manta, sierra and shark—were about US\$33 million.¹ The most important fishery is blue and brown shrimp, capture by gill and trawl nets from Gulf of Santa Clara, Puerto Peñasco and San Felipe. The average

of total harvested volume from “pangas” and boats is approximately 1,500–2,000 tons/year.²

Recent research estimates that the annual by-catch of vaquita is nearly 12 percent of its population. With vaquita numbers calculated to be growing at a rate of only 4 percent per year, it is therefore estimated the population may have decreased at a rate of 8 percent per year since 1997.

In 1997, the Mexican government established the International Committee for the Recovery of the Vaquita (CIRVA). The expert group concluded that the best population estimate was 567 individuals and that the main risk factor for the survival of the species was by-catch through entangling in gill nets. CIRVA also made the following recommendations:

- Reduce immediately the by-catch to zero vaquitas per year.
- Eliminate gill nets from the entire distribution area of the vaquita.
- Enlarge the Reserve in order to include all the distribution area of vaquita.
- Promote the use of alternative fishing methods, as well as alternative economic activities for local communities.

In June 2007, the Ministry of Agriculture and Fisheries (Sagarpa) and the Ministry of Environment (Semarnat) announced a multi-stakeholder, integrated plan to recover the vaquita and to ensure the management and sustainable use of marine resources in the upper Gulf of California.

Important milestones of CEC engagement:

- In May 2007, the BCWG analyzed Mexico's proposal to develop a trinational initiative in support of the Mexican strategy to conserve the vaquita.
- In May 2007, the Mexican government and *Alto Golfo Sustentable* (AGS) hosted a meeting in Mexicali, BC, with local stakeholders and

¹ Action Plan for the Protection and Recovery of vaquita (*phocoena sinus*) and the sustainable use of marine and coastal resources in the Upper Gulf of California, Mexican Government, 2007.

² Ibid.

members of the BCWG, to scope the potential of developing a NACAP for the vaquita.

- In June 2007, CEC's Council (Resolution 07-13) instructed the Secretariat to initiate collaborative actions to recover the vaquita and promote sustainable livelihoods.
- In June 2007, the Ministry of Agriculture and Fisheries (Sagarpa) and the Ministry of Environment (Semarnat) announced a multi-stakeholder, integrated plan to recover the vaquita and to ensure the management and sustainable use of marine resources in the Upper Gulf of California.
- In July 2007, a trilateral vaquita Task Force was established to guide the implementation of the Council Resolution and developed a North American Conservation Action Plan for the recovery of the vaquita, which identifies trilateral conservation priority actions and targets.
- In 2007, the CEC, in collaboration with the *Instituto Nacional de Ecología* (INE) and the *Instituto Nacional de Pesca* (INP), produced a socio-economic and trade assessment of the communities in the Upper Gulf of California.

Rationale

Recognizing that the vaquita is one of the most endangered marine mammals in the world, that it is listed as one of the 33 North American species of common conservation concern (SCCC), that its limited habitat range falls within CEC's Priority Conservation Area 25, the Upper Gulf of California, and that international cooperation among Canada, Mexico and the United States has played a major role in the recovery of other marine mammals, such as gray whales, the CEC will act as a catalyst for concerted, sustained strategic action that will complement efforts made by the Mexican government and other stakeholders to protect and promote the recovery of the species. More generally, this project is linked to the fulfilment of the 2005–2010 Strategic Plan through:

- Strengthening capacity, establishing a framework, and filling information gaps, for North American decision-makers to understand the underlying trade-related pressures on the vaquita and its habitat, and ways to promote sustainable development activities for the region;

- Capacity-building activities, as outlined in the vaquita NACAP, that will promote sustainable fishing practices in the Upper Gulf of California; and
- The sharing of scientific information and expertise on porpoises in North America in order to support and enrich knowledge about the vaquita and its habitat, as well as on the use of sustainable fishing methods and on the prevention and reduction of by-catch, particularly of porpoises.

Activities and Outputs

Key activities include:

- Facilitate the implementation of the vaquita North American Conservation Action Plan (NACAP), in particular its capacity-building, trade and environment, and information components, including:
 - Support the exchange of information for decision-making, on matters such as, but not limited to: best fishing practices to eliminate by-catch; vaquita population health and status; the characteristics and condition of its habitat; and key socio-economic stressors with regard to the vaquita;
 - Explore potential sustainable activities to alleviate pressure on the vaquita population and its key habitat, while promoting the socio-economic development of local communities;
 - Promote the implementation of capacity-building activities in the Upper Gulf of California—such as training in the use of alternative fishing gear, training in enforcement techniques, and community training in sustainable practices—that will not only promote vaquita recovery but that will also protect fishery resources; and
 - Support coordination with local, national and international nongovernmental organizations involved in the implementation of the NACAP.

The main targets of this project are local fishing communities (in particular those in the Gulf of Santa Clara, San Felipe and Puerto Peñasco); fisheries authorities; local and state governments; industry representatives; and the general public.

The main partners in the implementation of this project are the following:

- Government partners: *Comisión Nacional de Áreas Naturales Protegidas* (Conanp); *Comisión Nacional de Acuacultura y Pesca* (Conapesca); *Reserva de la Biosfera del Alto Golfo de California*; Profepa; NOAA /NMFS; Fisheries and Oceans Canada (FOC).
- NGO partners: *Iniciativa Alto Golfo Sustentable* (AGS); *Noroeste Sustentable* (Nos); WWF México; Pronatura; Vaquita.org; Conservation International (CI), among others.
- Academics/Scientists: CIRVA; *Centro de Investigación Científica y de Educación Superior de Ensenada* (CICESE); Scripps Institution of Oceanography.
- Industry: Ocean Garden; Marine Stewardship Council.

The task force comprises the following government agencies: Conanp and INE from Mexico; NOAA-NMFS from the United States; and FOC from Canada.

Associated outputs/products include:

- The publication of the vaquita NACAP (spring 2008);
- The publication of the joint CEC-INE-INP socio-economic study for the Upper Gulf of California, (summer 2008); and
- Workshops pertaining to the implementation of the capacity-building component of the NACAP, in particular:
 - training workshops on the use of alternative fishing gear and other sustainable economic activities; and
 - collaboration to improve “intelligence” and use of appropriate technologies to support regional enforcement.

Anticipated Outcomes and Performance Indicators

The desired outcomes of the project include:

Direct Outcomes:

- Increased knowledge of the socio-economic drivers and economic opportunities for the region.
- Improved understanding of underlying trade-related pressures on the vaquita, and means to address them.
- Improved trilateral collaboration on the prevention and reduction of incidental by-catch.
- Increased participation of local communities on surveillance and vaquita monitoring.

- Improved trilateral collaboration on the assessment and continuous monitoring of the vaquita population and its stressors.
- Improved “intelligence” and use of appropriate technologies to support regional enforcement.

Intermediate Outcomes:

- Elimination of incidental by-catch.
- Implementation and adoption of strategies to address trade-related pressures by relevant stakeholders.
- Increased awareness of the benefits of sustainable economic activities by the local communities.
- Adoption of effective strategies and programs to eliminate by-catch

Final Outcomes:

- Reduction of by-catch to zero vaquitas.
- Recovery and conservation of the vaquita and its habitat.
- Effective incentives for local fishermen to eliminate the use of unsustainable fishing gears.
- Effective incentives for stakeholders to support and maintain zero by-catch efforts.
- Improved local livelihoods by environmentally sound activities.

Performance Indicators:

- Completion of the CEC-INE-INP socio-economic report for the Upper Gulf of California.
- Publication of the vaquita NACAP.
- Number of MPAs in the region adopting the NAMPAN monitoring system, a suite of biophysical and socio-economic indicators.
- Frequency with which the Upper Gulf of California Biosphere Reserve and other MPAs report using the NAMPAN monitoring indicators and protocols.
- Increased effectiveness on enforcement activities as reported by Profepa.
- Number of fisherman in pilot fishing communities participating in sustainable fishing practices.
- Increased effectiveness of by-catch programs, as measured by volume change in pilot fishing communities.

Timetable and Project Sustainability

The vaquita NACAP outlines two time frames for the actions—short (one year) and medium (three to five years)—and recommends a cohesive trinational approach as more effective than individual efforts by the three NAFTA countries.

Communications

The main target audiences of this project are: local fishing communities (in particular those in the Gulf of Santa Clara, Puerto Peñasco and San Felipe); fisheries authorities; local and state governments; industry representatives; and the general public.

It is intended that the CEC will reach these audiences by means of the publication of the vaquita NACAP, both online and in hard copy.

Implementation Plan

PROJECT 12 – Recovering the Vaquita and Promoting Sustainable Local Livelihoods						
Objective – Initiate North American cooperative efforts through the implementation of a North American Conservation Action Plan (NACAP), to eliminate incidental by-catch of vaquita and support Mexico’s recovery strategy for this species						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Development and dissemination of a NACAP aimed at recovering the vaquita and promoting sustainable local livelihoods	Publication of vaquita NACAP	Spring 2008	A blueprint to catalyze trilateral actions to conserve the vaquita, support an effective stop on by-catch and habitat degradation, and promote sustainable livelihoods.	Government agencies of the three NAFTA countries, local and regional NGOs, resource managers	\$15,000	Implementation of the NACAP
	Quality Assurance Summary <i>Report: Vaquita North American Conservation Action Plan</i>	Internal review: November–December 2007 Peer review: November–December 2007 Party review–Quality assurance: December–January 2007/2008 Publication: March 2008				
2. Publication of the CEC-INE-INP socio-economic report	Analysis of social and economic drivers at play in order to foster sustainable activities in the region.	Dec	Increased awareness of the socio-economic drivers and opportunities of the region. Improved understanding of underlying pressures on the vaquita and the means to address them.	Government agencies of the three NAFTA countries, local and regional NGOs, resource managers	\$20,000	

PROJECT 12 – Recovering the Vaquita and Promoting Sustainable Local Livelihoods						
3. Hold training workshops aimed at protecting the vaquita, including: three workshops on sustainable fishing practices; one on law enforcement and compliance	Local fishermen from pilot communities trained on the use of sustainable fishing gears and practices. Enforcement officials and park managers trained on the use of enforcement technologies.	June–Nov	Increased number of fishermen in pilot communities participating in sustainable fishing practices Improved cooperation on “intelligence” and use of technologies for enforcement	The main targets of this project are local fishing communities (in particular those in the Gulf of Santa Clara, Puerto Peñasco, and San Felipe.); and Profepa and Reserve authorities	\$50,000	
4. Implementation of on-the-ground activities as identified in the NACAP	Sustainable economic and trade activities, to alleviate pressure on the vaquita population and its key habitat.	June–Dec	Local fishermen and authorities adopting strategies to address trade-related pressures by relevant stakeholders		\$55,000	
Total Cost:	\$140,000					

Performance Measurement Indicators: • Completion of the CEC-INE-INP socio-economic report for the Upper Gulf of California. • Completion of the vaquita NACAP. • Number of MPAs in the region adopting the NAMPAN monitoring system, a suite of biophysical, and socio-economic indicators. • Frequency with which the Upper Gulf of California Biosphere Reserve and other MPAs report using the NAMPAN monitoring indicators and protocols. • Increased effectiveness on enforcement activities, as reported by Profepa. • Number of fisherman in pilot fishing communities participating in sustainable fishing practices. • Increased effectiveness of by-catch programs, as measured by volume change in pilot fishing communities.	Key Partners: Semarnat, INE, Conapesca, Conanp, NOAA, Fisheries and Oceans Canada (FOC); <i>Alto Golfo Sustentable</i> (AGS), Ocean Garden
---	--

Project 13	Conserving the Monarch Butterfly and Promoting Sustainable Livelihoods	Responsible Project Manager at the CEC Secretariat	Hans Herrmann
Planned Allocation	2008: C\$120,000 Completion of 2007 outputs (information products submitted for QAPP review prior to 31 December 2007): C\$10,000 Total: C\$130,000	Working Group(s) associated with this work	Biodiversity Conservation Working Group (BCWG)

Objective of Project

The purpose of this project is to support and facilitate the development and implementation of the North American Monarch Conservation Plan (NAMCP). This initiative aims to maintain healthy monarch populations and habitats throughout the migration flyway, supported by a trilateral monarch butterfly sister-protected-area network and the participation of local communities.

Background

The monarch butterfly (*Danaus plexippus*), with its wide geographic migratory range, is emblematic of the interdependence of our linked ecosystems. 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.

In Mexico, since 2003, the *Foro Regional Mariposa Monarca* is an all-inclusive forum comprising local communities and conservation groups, the states of Michoacán and México, and federal government agencies, academia, nongovernmental organizations and, most importantly, the participation of local people in the Mexican overwintering region. This Mexican initiative is aimed at supporting conservation efforts, with emphasis upon those oriented towards stopping habitat deterioration and the promotion of sustainable livelihoods.

On the continental scale, the multi-stakeholder collaborative effort to develop the North American Monarch Conservation Plan was initiated in December 2006 at the Monarch Flyway Conservation Workshop in Mission, Texas, and further developed 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.

Milestones of CEC engagement:

- In 1996, the three environment ministers announced the creation of the Monarch Butterfly Conservation Program. The program was aimed at supporting activities such as the monitoring of monarchs along their migratory routes, the assessment of the dynamics of the population, and the identification of key monarch butterfly sites.
- In 1997, a workshop of scientists, citizen conservation groups and nongovernmental organizations was held in Morelia to share information and to discuss alternatives for the conservation of the monarchs and of their unique migratory phenomenon.¹
- In May 2007, the BCWG analyzed Mexico's proposal to develop a trinational initiative to support existing collaborative multi-stakeholder initiatives to conserve the monarch butterfly.
- In June 2007, CEC Council Resolution (07-09) instructed the Secretariat to initiate collaborative actions to conserve the monarch butterfly while promoting sustainable livelihoods.

¹ See <http://www.cec.org/pubs_docs/documents/index.cfm?varlan=English&ID=973>.

- In July 2007, a trinational Monarch Butterfly Task Force was established to guide the implementation of Council Resolution 07-09.
- In 2007, the Secretariat coordinated meetings to facilitate development and implementation of a draft NAMCP. The NAMCP identifies trinational conservation priority actions and targets.

Rationale

Throughout North America, many organizations and a myriad initiatives focus attention on monarch butterfly research, conservation, and education. However, there is ample recognition of the need for an integrated, continental strategy to protect and maintain the monarch's flyway, while dealing with the underlying causes of habitat deterioration. This is why the CEC Council mandated the Secretariat to carry out this initiative in close collaboration with *Foro Regional Mariposa Monarca*. The CEC will act as a catalyst and a regional forum for sustained strategic action that will complement existing North American initiatives, and the efforts of the Mexican government and other stakeholders to protect the species and the flyway.

More generally, this project is linked to the fulfillment of the 2005–2010 Strategic Plan through:

- Supporting coordination among local, national and international agencies and NGOs involved in the conservation of monarch butterfly habitat and its migratory phenomenon;
- Filling information gaps in the understanding of North American decision-makers of the underlying pressures on the monarch and its habitat throughout the entire flyway, and of the means to address them;
- 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; and
- Promoting sustainable economic activities that will reduce pressure on key monarch habitat.

Activities and Outputs

Based on the priority actions identified in the North American Monarch Conservation Plan (NAMCP²), key activities include the following:

- Publishing and facilitating implementation of the NAMCP (publication in spring 2008).
- Developing of a socio-economic study to assess the underlying pressures on the monarch habitats throughout the flyway, and the means to address them. The scope of the socio-economic study will be defined based on results of the December 2007 NAMCP workshop.
- Supporting the exchange of information among network sister sites on matters such as: the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors.
- Promoting the implementation of capacity-building activities at local, national and regional levels, such as: training for “campesino-to-campesino” projects, North American Web-based school-to-school monitoring/reporting initiatives, and community training on sustainable practices.
- Training workshop to develop capacity of resource agency staff and citizen scientists in north and central Mexico to implement trinational monitoring protocols and increase public outreach.
- Promoting collaboration to improve and support regional enforcement.

Target groups this project tries to influence: local extractive and agricultural industry, local communities, local and state authorities, and Profepa.

Key partners that will participate in the implementation of this project include:

- Government agencies: *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), FWS and CWS;
- local and state authorities;

² As instructed by Council's Resolution 07-09, the Secretariat coordinated stakeholder and experts meetings in December 2007 to facilitate the development of the North American Monarch Conservation Plan in the fall of 2007.

A wide array of experts, government agencies, NGOs and local and federal authorities participated in its development.

- *Reserva de la Biosfera Mariposa Monarca*;
- Trilateral Committee for Wildlife and Ecosystem Conservation and Management;
- *Foro Regional Mariposa Monarca*;
- WWF-Mexico, and local conservation groups; and
- Local communities, scientists, schools and citizen conservation groups in all three countries.

Associated Outputs/Products

- Publication of the North American Monarch Conservation Plan, (spring 2008).
- A socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat and means to address them.
- Workshop pertaining to the implementation of the monitoring network in monarch sister sites.
- Training workshop on enforcement technology and intelligence.
- Training workshop on alternative sustainable economic activities.

Anticipated Outcomes and Performance Indicators

Direct Outcomes:

- Increased knowledge of the socio-economic drivers and economic opportunities for the region.
- Improved understanding of underlying pressures on the overwintering habitat throughout the flyway and means to address them.
- Improved trilateral collaboration on the assessment and continuous monitoring of the species, its habitat, and its stressors, throughout the flyway.
- Increased participation of local communities on monitoring activities.
- Improved enforcement intelligence and use of appropriate technologies to support regional monitoring.

Intermediate Outcomes:

- Implementation of a monitoring network based on monarch sister sites.

- Reduced losses of monarch migration, breeding, and overwintering habitat.
- Implementation and adoption of strategies to address trade-related pressures by relevant stakeholders
- Increased awareness of the benefits of sustainable economic activities by the local communities
- Adoption of effective strategies and programs to eliminate monarch habitat destruction

Final Outcomes:

- Healthy monarch populations and habitats throughout the North American migration flyway supported by a network of monarch sister sites (Protected Areas, private landowners, ejidos) and prosperous local communities
- A long-term and sustained cooperative effort for continental monarch butterfly conservation.

Performance Indicators:

- Publication of the NAMCP
- Completion of the socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat, and the means to address them.
- Number of monarch sites in North America adopting the NAMCP to guide their conservation actions.
- Adoption of a North American monitoring framework and “toolkit” by monarch sister sites, NGOs, citizen conservation groups and local communities.
- Increased effectiveness on enforcement activities, as reported by *Procuraduría Federal de Protección al Ambiente* (Profepa).
- Number of “landowners” in pilot communities participating in sustainable projects.

Timetable and Project Sustainability

This monarch project calls for two time frames for the actions—short (one year) and medium (three to five years)—and recommends a cohesive trilateral approach as more effective than individual efforts by the three NAFTA countries.

Communications

The main target audiences of this project are: local authorities, local communities, scientists, citizen conservation groups, and the general public.

It is intended that the CEC will reach these audiences by means of the publication of the North American Monarch Conservation Plan, both online and in hard copy.

Implementation Plan

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective – Implementation of the North American Monarch Conservation Plan, with the aim of maintaining healthy monarch populations and habitats throughout the migration flyway while promoting sustainable livelihoods						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Publication of the North American Monarch Conservation Plan	North American Monarch Conservation Plan	May 2008	A blueprint to catalyze trinational actions to conserve the monarch, stop degradation of its habitat, and promote sustainable livelihoods	The main target audiences of this project are: local authorities, local communities, citizen conservation groups, and the general public	\$15,000	T.b.c., as per the North American Monarch Conservation Plan
	Quality Assurance Summary <i>Report:</i> North American Monarch Conservation Plan (NAMCP)	Internal review: January 2008 Peer review: January 2008 Party review–Quality assurance: February 2008 Publication: May 2008				
2. Development of socio-economic assessment of the underlying pressures on the monarch and its habitat, and the means to address them	Publication: Scoping and analysis of social and economic drivers at play, in order to foster sustainable activities in the region	Mar–Oct	Improved understanding of underlying pressures on the monarch habitat, and the means to address them	The main target audiences of this project are: local authorities, decision-makers, scientists, and citizen conservation groups	\$25,000	T.b.c., as per the North American Monarch Conservation Plan
	Quality Assurance Summary <i>Report:</i> Socio-economic assessment of the underlying trade-related pressures on	Internal review: June 2008 Peer review: June 2008 Party review–Quality assurance: July 2008 Publication: October 2008				

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective – Implementation of the North American Monarch Conservation Plan, with the aim of maintaining healthy monarch populations and habitats throughout the migration flyway while promoting sustainable livelihoods						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	the Monarch and its habitat and means to address them					
3. Trinational training workshop to develop capacity of resource agency staff and citizen scientists to implement trinational monitoring protocols and increase public outreach. To be hosted in north and central Mexico	Exchange of information for decision-making between scientists and managers on matters such as the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors Development of a cadre of citizen scientists conducting monitoring in the flyways in Mexico	Feb–Oct	Improved trinational collaboration through the sharing of information and the monitoring of the monarch population health and status in the breeding, wintering and migrating stages; the condition of habitats throughout the flyway; and key socio-economic stressors	The appropriate government agencies, and experts/scientists of the three NAFTA countries; local conservation groups, citizen scientists, and local communities	\$35,000	T.b.c., as per the North American Monarch Conservation Plan
4. Training workshop, with “campesino-to-campesino” approach on alternative sustainable economic activities, as	Local “landowners” from pilot communities trained on the use of sustainable practices	Jun–Dec	Increased number of “land owners” from pilot communities participating in sustainable practices	Local authorities, local communities, conservation groups	\$20,000	T.b.c., as per the North American Monarch Conservation Plan

PROJECT 13 – Conserving the monarch butterfly and promoting sustainable livelihoods						
Objective – Implementation of the North American Monarch Conservation Plan, with the aim of maintaining healthy monarch populations and habitats throughout the migration flyway while promoting sustainable livelihoods						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
identified in the NAMCP						
5. Training workshop on effective enforcement	Enforcement officials, park managers, and citizen monitoring groups trained on the use of enforcement technologies	Sep–Oct	Improved cooperation on enforcement and use of technologies to support regional monitoring Increased participation of local communities in surveillance and monitoring	The main target audiences of this project are: local authorities, Profepa and citizen monitoring groups.	\$25,000	T.b.c., as per the North American Monarch Conservation Plan
Total Cost:	\$120,000					
Completion of 2007 outputs (publishing, translation, editing and layout of documents/information products submitted for QAPP review prior to 31 December 2007): \$10,000 North American Monarch Conservation Action Plan (related to 2007 activities under Council Resolution 07-09)						

Performance Measurement Indicators: ▪ Publication of the monarch NAMCP ▪ Completion of the socio-economic study to assess the underlying trade-related pressures on the monarch and its habitat, and the means to address them ▪ Number of monarch sites in North America adopting the NAMCP to guide their conservation actions ▪ Adoption of a North American monitoring framework and “toolkit” by monarch sister sites, NGOs, citizen conservation groups, and local communities ▪ Increased effectiveness on enforcement activities as reported by Profepa ▪ Number of “landowners” in pilot communities participating in sustainable projects	Key Partners: Government agencies: Conanp, FWS and CWS; local and state authorities <i>Reserva de la Biosfera Mariposa Monarca</i> Trilateral Committee <i>Foro Regional Mariposa Monarca</i> WWF-Mexico, and local conservation groups Local communities, scientists, schools and citizen groups
--	---

Project 14	Protecting Priority Conservation Areas from Alien Invasive Species	Responsible Project Manager at the CEC Secretariat	Hans Herrmann
Planned Allocation	2008: C\$100,000 Completion of 2007 outputs (information products submitted for QAPP review prior to 31 December 2007): C\$25,000 Total: C\$125,000	Working Group(s) associated with this work	Biodiversity Conservation Working Group (BCWG)

Objective of Project

The purpose of this project is two-fold, first, to continue the work towards protecting Priority Conservation Regions (PCRs)¹ in North America from the harmful effects of invasive alien species (IAS) and take stock of current work on IAS risk assessment and second explore new areas of cooperation on the detection and prevention of invasive species associated with tradeable goods at North America's borders that threaten native species and ecosystems. These issues will be explored in discussions with the Joint Public Advisory Committee, the North American Enforcement Working Group, border customs and inspection services of all three North American countries, and other government agencies with responsibilities for science, information, and policy aspects of invasive species prevention and detection at the border.

Background

Canada, Mexico and the United States have a long history of regulatory and non-regulatory action to protect against IAS. Experience, however, has shown that many IAS affect multiple sectors of the economy and the environment. Furthermore, recent studies indicate that substantial gaps exist in the ability of nations to detect and prevent new species at the border that

can inflict substantial ecological or economic or ecological damage once those species establish in new ecoregions of common concern.

To date, the CEC has undertaken a significant amount of work on IAS issues. For example, in 2001 the CEC convened a North American workshop to identify opportunities for trilateral cooperation.² In 2003, the Biodiversity Program in partnership with 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: 1) understand the cause and consequences, as well as status and trends, of biological invasion in North America's aquatic and marine systems; 2) understand the need for bi- and trilateral cooperation to prevent and manage

¹ Strategic Plan for North American Cooperation in the Conservation of Biodiversity
http://www.cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=1088

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

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

introductions of IAS; 3) identify opportunities for such cooperation; and 4) contribute to and support well-informed policy decisions that will help minimize the spread of IAS into and within North America. In 2005, the BCWG ranked the Invasive Species issue, as the highest priority of the 29 Priority Areas for Action set forth in the CEC's Biodiversity Strategic Plan.

Important milestones of recent CEC engagement:

- In 2001, identification of opportunities for trilateral cooperation.
- In 2003, JPAC roundtable: *An Unwelcome Dimension of Trade: The Impact of Invasive Species in North America*.
- 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 (suckermouth catfishes).
- 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 capacity of its country members to gather, systematize, and analyze information on aquatic IAS.
- In 2007, the CEC is completing two test case study risk assessments for the Snakehead and Plecostomus. These risk assessment guidelines 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)
- That same year, the CEC completed a socio-economic study on the impact of the invasion of Plecostomus in the Infiernillo Dam (Mexico) and a *Loricariid* taxonomic analysis. This work directly

addressed two key priorities, information exchange and increased capability to prevent and control aquatic IAS.

- In 2007, 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.

Rationale

This project is focused on strengthening the capacity and filling information gaps to address biological invasions at sites of high ecological significance and high vulnerability ("hot spots"), where the ecological integrity of the region may be significantly affected by such invasions. In 2008, the Secretariat will identify priority areas within PCRs that are of high ecological significance and are particularly susceptible to biological threats, to assist the decision-making process to prevent biological invasions. It is anticipated that the methodology to be used for identifying these priority conservation areas has potential beyond the specific project for protecting these areas from unwanted movement of invasive alien species, i.e., identifying vulnerable areas, not just pristine areas, which would be helpful in invasive species monitoring and early detection programs.

More generally, this project is linked to the fulfillment of CEC's 2005–2010 Strategic Plan through:

- Strengthening the capacity and filling information gaps, for North American decision-makers to address the risk of biological invasions, at sites of high ecological significance and high vulnerability ("hot spots"), where the ecological integrity of the region may be significantly affected.
- Enhancing the sharing of information and the capacities in ports of entry (destination points) to gather, analyse and systematise biological information from other regions (countries of origin) to assist the decision making process to prevent biological invasions.

- Establishing a framework for information sharing and capacity building needs within agencies and organisations within the selected priority areas for cooperation.
- Establishing a strategy for information sharing and capacity building among border customs and inspection agencies with responsibilities for detecting invasive species as they enter North America and before such species can be established in native ecoregions.

Activities and Outputs

Key activities include:

- In order to focus trilateral efforts (in the context of CEC) and reduce any potential redundancy, identify the roles and activities of the various organizations/agencies involved with the IAS issue at North American borders including an assessment of gaps and determination of priorities for future strategic involvement on issues of border detection and prevention.
- Take stock of current work on invasive alien species (IAS) risk assessment and to determine future direction of trilateral cooperation on invasive species, particularly in defining work within priority regions and on risk management at our national borders.
- The identification of three PCRs to focus further work on Invasive Alien Species: one marine, one terrestrial and one freshwater, from the list of CEC's PCRs.
- The identification of priority areas/sites (within the selected PCRs) that are of high conservation significance, and are particularly susceptible to biological invasions given their ecological characteristics and their geographic locations. This activity entails the identification of ecological criteria and vulnerability criteria (e.g., within a pathway, and mode of entry. Each country will carry out a process to define the criteria/rationale and selection of the areas that require attention.

- Capacity building for all three countries on best management practices for the detection and prevention of new introductions of IAS. In particular, Mexico is very interested in a workshop for the northern Mexico with the participation of experts from Canada and the United States. Mexico has now the capacity to replicate different training workshops for capacity building at different levels.
- Analyze how enforcement of existing regulations aimed at the detection and prevention of invasive species can reduce new introductions and the spread of these species in Priority Areas of North America.

Target groups this project tries to influence include: decision-makers, resource managers, local and state authorities.

Key partners that will participate in the implementation of this project include: multiple US government agencies with responsibilities for detection and prevention of invasive species, Conabio and other Mexican agencies involved in the detection and prevention of invasive species, Environment Canada and other federal departments/agencies involved in implementing the National Invasive Alien Species Strategy, IUCN, Global Invasive Species Programme (GISP).

It is crucial for the successful implementation of this project to engage the customs authorities in the three countries as key partners in this project, as the three countries understand that inspections at the borders are the true first lines of defence against IAS and one of the best opportunities to reduce the unwanted movement of these species.

Links will be explored with the project on Trade and the Enforcement of Environmental Laws (6) to see if it would be possible to include information on the potential risks of IAS and the identification of specific organisms in the training modules proposed for use by customs and enforcement officials in identifying and intercepting illegal shipments.

2008 Project Description

This project advances the fulfillment of one five priority areas for collaboration as identified by the Parties at the Montebello Summit, namely Smart and Secure Borders.

Associated outputs/products include:

- Report pertaining to the identification of three areas (one marine, one terrestrial and one freshwater) and identification of priority areas susceptible to bio-invasions within CEC's PCRs, (Spring-Summer 2008)
- Report that identifies information-sharing and capacity building needs in priority areas ("hot spots").
- Report identifying gaps and opportunities for better cooperation at our national borders with respect to the movement of invasive alien species.

Anticipated Outcomes and Performance Indicators

The desired outcomes of the project include:

Direct Outcomes:

- Increased awareness and understanding of the risks of potential biological invasions in the North American PCRs and at our national borders and improved trilateral collaboration to mitigate the risk of invasive alien species in these areas.

Intermediate Outcomes:

- Implementation and adoption of strategies to reduce bio-invasion risks originating from trade-related pathways in selected priority areas.

- Enhanced access and links with other international information systems to facilitate the sharing of biological and ecological information to prevent invasions.
- Strengthened institutional capabilities of response and prevention in selected priority areas and at national borders.

Final Outcomes:

- Strengthened regional capacity to protect PCRs in North America from the harmful effects of invasive alien species

Performance Indicators

- Identification of priority issues and regions, common North American concerns, including the map of actors in order to help define an approach for future trilateral invasive species work.
- Identification of state, provincial and local stakeholders that can be engaged in the future IAS work of the CEC.
- Number of tools and mechanisms potentially available or used for each actual or potential IAS.
- Number of priority areas (within the selected PCRs) that are of high conservation significance, and are particularly susceptible to biological invasions.
- Number of federal, state, provincial and local agencies and stakeholders partnering to increase their response and prevention capabilities in selected hot spots and at national borders.
- Engagement of nongovernmental organizations through participation of the JPAC in the process of identifying priority issues and approach for future CEC work on invasive species.

2008 Project Description

- Use of an interoperable AIS information system/databases by local, and regional partners.

Timetable and Project Sustainability

- In 2008, this project will identify three PCRs in which to focus its strategic activities.
- Interoperable systems will be available as screening tools for federal, regional and local managers for selected hot spots in 2008.
- In 2008, this project will identify a future approach and specific activities for the CEC on trilateral cooperation related to IAS. Specific activities under this approach will be undertaken in 2009.
- This project will identify specific, practical applications of earlier risk assessments for aquatic species and risk assessment guidelines that are still underway but will be subject to Parties' review under this project.
- This project will identify whether the current project assessing the interoperability of scientific databases on IAS has specific applications to PCRs.

Communications

Dissemination of the results of the consultation among the Parties and JPAC on invasive species will be made available online and through the partner's web sites.

Implementation Plan

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective – This project seeks to protect Priority Conservation Regions in North America from the harmful effects of invasive alien species (IAS) by enhancing the sharing of information and strengthening the institutional capabilities of response and prevention in selected priority areas.						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1.1 Meeting to discuss final selection of criteria for and designations of priority areas highly susceptible to biological invasions. Prior to this meeting, each country should undertake internal consultations in order to define the PCRs of interest, and the criteria by which those regions should be selected	A consensus-based working paper identifying priority areas (within the selected PCRs) that are of high conservation significance, and are particularly susceptible to biological invasions to focus cooperation action, to the extent possible identify specific tasks to undertake within those priority areas	Spring-summer 2008	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	\$45,000	T.B.C.
1.2 Secretariat will facilitate a review by the Parties to review the overall progress and merit of the Priority Conservation Region approach to inform future strategic direction of collaborative efforts			Identify gaps, reaffirm direction and priorities for action with respect to the Priority Conservation Region approach			
2.1 Secretariat will facilitate a review by			Identification of elements of aquatic	Key partners: Conabio,	\$45,000	A series of capacity building projects for

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective – This project seeks to protect Priority Conservation Regions in North America from the harmful effects of invasive alien species (IAS) by enhancing the sharing of information and strengthening the institutional capabilities of response and prevention in selected priority areas.						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
the Parties on the results of the promised work product from 2006–2007 on aquatic risk assessments to determine whether the risk assessment guidelines are useful to border customs and inspection services and to determine whether adoption of such guidelines at the national level affect trade flows			risk assessment for all three countries that may be useful in the implementation of rapid response mechanisms for aquatic invasions	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 of Interior and its agencies; US Department of Agriculture/various inspection services		border customs and inspection services that enhance access to scientific information on IAS or that institute better techniques for gathering and analyzing data on invasive species at the border, or that result in shared experiences on best management practices for rapid response
2.2 The Secretariat will convene video conferences/meeting and conference calls with relevant federal agencies of all three countries to develop a consensus-based working paper identifying priorities and specific capacity building tasks for a new invasive species strategy	Working paper identifying priorities and specific capacity building tasks for a new invasive species strategy					

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective – This project seeks to protect Priority Conservation Regions in North America from the harmful effects of invasive alien species (IAS) by enhancing the sharing of information and strengthening the institutional capabilities of response and prevention in selected priority areas.						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
strategy aimed at capacity building on prevention and detection of IAS at national borders. The working paper should contain information about potential future activities on the interoperability of scientific databases on IAS, given the work to date that has been completed through the CEC on interoperability						
2.3 Secretariat will facilitate a review of the applicability of its current work on interoperability of invasive species databases to applications for the PCRs						
3.0 Explore opportunities to raise awareness amongst relevant government agencies of the importance of	Pilot toolkit developed in consultation with relevant government agencies	Spring-summer 2008	Identify the components of appropriate and effective tools for frontline use that are tied to trade pathways	Government agencies dealing with invasive species in each of the three NAFTA countries	\$10,000	TBD

PROJECT 14 – Protecting Priority Conservation Areas from Alien Invasive Species						
Objective – This project seeks to protect Priority Conservation Regions in North America from the harmful effects of invasive alien species (IAS) by enhancing the sharing of information and strengthening the institutional capabilities of response and prevention in selected priority areas.						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
identifying and preventing the entry of invasive alien species into North America particularly through preventative actions at borders and ports of entry			for goods which may be associated with invasive alien species			
Total Cost:	C\$100,000					
Completion of 2007 outputs (publishing, translation, editing and layout of documents/information products submitted for QAPP review prior to 31 December 2007): \$25,000						
QA 06.22-Guidelines for Risk Assessment of Alien Invasive Species and their Pathways [integrating QA 07.64-Report on the test case of the two selected species (Plecostomus and snakehead), and a screening process for the aquarium trade pathway (Presa del Infiernillo, Michoacán)]						
Performance Measurement Indicators: • Completion of the reports identifying PCRs and hot spots. • Number of priority sites (within the selected PCRs) that are of high conservation significance, and are particularly susceptible to biological invasions • Number of local agencies and stakeholders partnering in priority areas/sites identified as “hotspots” • Completion of the workshop to strengthen institutional capabilities of response and prevention in selected priority areas.					Key Partners: US National Invasive Species Council, Conabio, Environment Canada, scientists and other relevant stakeholders.	

Project 15	Strengthening Wildlife Enforcement	Responsible Project Manager at the CEC Secretariat	Evan Lloyd
Planned Allocation	C\$90,000	Working Group(s) associated with this work	North American Wildlife Enforcement Group

Objectives

The objectives of this project are to:

- Stop, in advance and at borders, illegal shipments 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 in areas such as wildlife inspection, investigation and identification techniques; and
- Support Mexico's efforts to institutionalize a domestic capacity-building program on wildlife enforcement.

North America is a central player in the international wildlife market as both a consumer and supplier of wildlife 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. In particular, Mexico, with its rich diversity, represents a high-potential exporter of wildlife and genetic resources. The increase in trade among the three countries since the passage in 1994 of the North American Free Trade Agreement (NAFTA) has led to closer cooperation between the countries to both manage the legal wildlife trade and combat the illegal trade. The wildlife trade in Canada, Mexico and the United States is regulated by national laws and through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a treaty signed by all three countries.

Background

NAAEC Article 1(d) and Council Resolutions 96-06 and 03-08 form the basis of this work.

NAAEC Article 1(d) directs the Parties to support the environmental goals and objectives of NAFTA, which 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 1996, the Council established the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), comprised of senior-level environmental enforcement officials. The EWG operates under the terms of reference contained in Council Resolution 96-06, which reinforces the Parties' commitment to strengthening North American enforcement cooperation.

The North American Wildlife Enforcement Group (NAWEG) was created in 1994, when representatives of the *Secretaría de Desarrollo Social* (Sedesol—Mexico), the Canadian Wildlife Service (CWF) and the United States Fish and Wildlife Service (FWS) agreed to formalize the exchange of intelligence information and training related to wildlife enforcement. In November 1996, the EWG recognized NAWEG as an expert group necessary to assist in the implement the wildlife enforcement portions of the CEC program. NAWEG is recognized as the enforcement contact by the Trilateral Committee for Wildlife and Ecosystems Management and Conservation (Trilateral Committee) and also acts as the North American representative to Interpol on wildlife enforcement.

Since 1996, NAWEG, working with the EWG, has identified the need for

cooperative approaches concerning the enforcement of domestic laws that implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In this vein, the CEC has supported a number of capacity-building courses, information products, and exchange programs.

NAWEG-led workshops have allowed wildlife officials to take a closer look at the illegal practices concerning big game hunting and game farming, orchids and cacti, and coral reefs, for example. They have also examined such issues such as the use and sharing of wildlife intelligence and using the Internet to combat illegal trade in wildlife.

In 2007, the CEC Secretariat finalized the document *Capacity Building Needs Assessment for the Enforcement of Mexican Wildlife Laws*. This needs assessment fulfilled the 2007 program plan objectives for wildlife enforcement to focus the CEC's involvement on "supporting Mexico's efforts to institutionalize a domestic capacity-building program on wildlife enforcement, including ongoing training for wildlife enforcement officials of the Profepa offices in Mexico City and the various states." Thus, the project concentrates on implementing and institutionalizing the continuance of a three-year training initiative. Key objectives of the project are: development of superior training materials; identification of mechanisms for ensuring the training can be sustained in Mexico; and establishing the exchange of expertise on areas such as wildlife inspection, investigation and identification techniques.

Rationale

This project is directly linked to the Information for Decision-making, the Capacity Building, and the Trade and Enforcement components of the 2005–2010 Strategic Plan. This project has three tasks.

Task 1. Begin implementation of the three-year North American training initiative for wildlife enforcement, with a focus on issues in Mexico based on the CEC document, *Capacity Building Needs Assessment for the Enforcement of Mexican Wildlife Laws*.

Task 2. Facilitate the institutionalization of the components of this training initiative.

Task 3. Facilitate the information exchange and cooperation among North American wildlife enforcement agencies.

Activities and Outputs

The following outputs are part of this project:

Task 1. Final determination of the subject matters and the work plan of the three-year wildlife training initiative, as well as implementation of the first capacity-building event.

Task 2. Determination of the methodology or partner for institutionalizing the capacity-building materials in Mexico contained in task 1.

Task 3. Final updates to materials for the CEC website, and support of outreach and networking with the Trilateral Committee for Wildlife and Ecosystem Conservation and Management (Trilateral Wildlife Committee), and other governmental and nongovernmental entities.

This project seeks to inform government agencies. Partners and stakeholders in this effort will be federal, state and local agencies, nongovernmental organizations, and universities, as appropriate.

Anticipated Outcomes and Performance Indicators

The anticipated outcomes for this project are as follows:

Task 1. The direct outcome of this task is the increased awareness and knowledge of wildlife enforcement laws by government inspectors and officials, and of how North American laws work better to promote the rule of law when they work together. The final outcome is better ability by governments to respond to domestic and import and export violations, while legal trade is facilitated. This task can also help promote better compliance and more coordinated actions between governments.

Task 2. The direct outcome of this task is the implementation of a three-year training initiative for wildlife enforcement personnel, with the final outcome the institutionalization of this capacity-building in Mexico, either through the governments, through a third-party organization, or as a Web-based application.

Task 3. The direct outcome of this task will be increased awareness and knowledge of domestic and import and export issues being addressed by wildlife officials in the three countries. This will also help inform interested individuals and organizations of the activities of the CEC, NAWEG and individual government agencies. This will promote intergovernmental cooperation and can help contribute to greater policy coherence and the more

efficient use of government resources.

Timetable and Project Sustainability

Task 1. This task is intended to be a three-year training effort. The actual training will begin in 2008 and will continue until 2010.

Task 2. The scope and duration of CEC involvement in this task will be determined once a process for institutionalizing the course is determined, in 2008.

Task 3. This task will continue through the duration of the training effort.

Communications

It is essential to communicate project results to enforcement partners and practitioners as well as the general public. The <cec.org> website can be utilized to provide more descriptive information concerning wildlife enforcement on the part of the Parties' governments and other CEC partners, and to deliver background and training materials to the wildlife community. Component and training materials require a common project overview and common CEC identification.

There are distinct audiences for the products, services, and general

information concerning CEC support for wildlife enforcement, and other means of disseminating pertinent information concerning the project's objectives and outcomes will be developed. In this regard, it is important to build public awareness and support for the project by communicating both general project progress as well as highlighting specific topic areas, while at the same time respecting the more restricted information requirements of enforcement officials.

General communication materials (including project fact sheets and public outreach products) will serve to describe the project's integrity, and to make clear the nature of the CEC contribution to this trilateral effort.

Information Management

Support may be needed to redesign and update the present content of the CEC/NAWEG webpage and to provide for improved access and interactive formats to resource materials used for this project.

Implementation Plan

PROJECT 15 – Strengthening Wildlife Enforcement						
Objective – Strengthen capacities to improve compliance with wildlife laws						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
1. Begin implementation of the three-year North American training initiative for wildlife enforcement, with a focus on issues in Mexico, based on the CEC document, <i>Capacity Building Needs Assessment for the Enforcement of Mexican Wildlife Laws</i>	Final determination of the subject matter and the work plan of the three-year wildlife training initiative, as well as implementation of the first capacity-building event	First capacity-building session in fall 2008	The direct outcome of this task is the increased awareness and knowledge of wildlife enforcement laws by government inspectors and officials, and how North American laws better work together to promote the rule of law. The final outcome is governments that are better able to respond to domestic and import and export violations while facilitating legal trade. This task can also help promote better compliance and more coordinated actions between governments.	Government inspectors and authorities, as well as civil society	\$60,000	This is designed to be the first year of a three-year training activity, with CEC support to be phased out upon successful institutionalization of such training within Mexico.
1.1 Meeting of NAWEG (Previously planned for 2007 and now planned for January 2008)	Determination of the subject matter of the three-year initiative Provide Mexico with a guideline to institutionalize the training.	Late January	Determination of the subject matter of the training initiatives for the three year project. Determination of the process to institutionalize the training in Mexico.	<i>Profepa, Academia, Sermanat, US EPA</i>	\$10,000	
2. Facilitate the institutionalization	An agreed-upon methodology or	Feb–May	The direct outcome of this task is achieved once the	Government inspectors and authorities, as well	\$10,000	This is designed to be the first year of a three-year

PROJECT 15 – Strengthening Wildlife Enforcement						
Objective – Strengthen capacities to improve compliance with wildlife laws						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
of the components of this training initiative	partner for institutionalizing the capacity-building materials contained in task 1	2008	courses are institutionalized, either by the governments, through a third-party organization, or as a Web-based application.	as civil society	\$10,000	training activity, with CEC support to be phased out upon successful institutionalization of such training within Mexico.
	Quality Assurance Summary <i>Background paper:</i> Capacity Building Needs Assessment, Wildlife Enforcement in Mexico	Internal review: July 2007 Party review–Drafting: August 2007 Party review–Quality assurance: February 2008 Publication: March 2008				
	Quality Assurance Summary <i>Background paper:</i> Three-year Training Initiative, Plan and Institutionalization	Internal review: July 2007 Party review–Drafting: August 2007 Party review–Quality assurance: February 2008 Publication: March 2008				
3. Facilitate the information exchange and cooperation among North American wildlife enforcement agencies	Final updates to materials for CEC website, and support of outreach and networking with the Trilateral Wildlife Committee and other governmental and nongovernmental	Continuous	The direct outcome of this task will be increased awareness and knowledge of domestic and import and export issues being addressed by wildlife officials in the three countries. This will also help inform interested individuals and	Government inspectors and authorities, as well as civil society.	\$10,000	This is designed to be the first year of a three-year training activity, with CEC support to be phased out upon successful institutionalization of such training within Mexico.

PROJECT 15 – Strengthening Wildlife Enforcement						
Objective – Strengthen capacities to improve compliance with wildlife laws						
2008 Tasks	Key Outputs	Timing	Expected Outcomes	Beneficiaries (Reach)	Budget (C\$)	Future Activities
	entities		organizations of the activities of the CEC, NAWEG and individual government agencies. This will promote intergovernmental cooperation and can help contribute to greater policy coherence and the more efficient use of government resources.			
Total Cost: C\$90,000						
Performance Measurement Indicators: ▪ Number of trained enforcement officers in Mexico who have participated in courses ▪ Effectiveness of trilateral efforts to address shared wildlife enforcement concerns						Key Partners: NAWEG Profepa Federal, state and local agencies, nongovernmental organizations, and universities