

North American Agenda for Action: 2003–2005

A Three-Year Program Plan for
the Commission for Environmental Cooperation
of North America



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Published by the Communications Department of the CEC Secretariat.

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Profile

In North America, we share a rich environmental heritage that includes air, oceans and rivers, mountains and forests. Together, these elements form the basis of a complex network of ecosystems that sustains our livelihoods and well-being. If these ecosystems are to continue being a source of future life and prosperity, they must be protected. Doing so is a responsibility shared by Canada, Mexico and the United States.

The Commission for Environmental Cooperation (CEC) of North America is an international organization created under the North American Agreement on Environmental Cooperation (NAAEC) by Canada, Mexico and the United States to address regional environmental concerns, help prevent potential trade and environmental conflicts and promote the effective enforcement of environmental law. NAAEC complements the environmental provisions established in the North American Free Trade Agreement (NAFTA) to which it is a side accord.

The CEC accomplishes its work through the combined efforts of its three principal components: the Council, the Secretariat and the Joint Public Advisory Committee (JPAC). The Council is the governing body of and is composed of the highest-level environmental authorities from each of the three countries. The Secretariat implements the annual work program and provides administrative, technical and operational support to the Council. The Joint Public Advisory Committee is composed of fifteen citizens, five from each of the three countries, and advises the Council on any matter within the scope of the agreement.

Mission

The CEC facilitates cooperation and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, Mexico and the United States.

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The North American Free Trade Agreement (NAFTA), which came into effect in 1994, created the world's largest trading block. At the same time, the NAFTA partners wanted to ensure that environmental safeguards were built into the trade liberalization pact. They therefore signed an accord, the North American Agreement on Environmental Cooperation (NAAEC), to address potential trade-related environmental concerns and to promote environmental cooperation in the region. The organization created by the Agreement to carry out its provisions is the Commission for Environmental Cooperation (CEC) of North America, an international organization composed of the Council—cabinet-level environment officials from the three countries; the Joint Public Advisory Committee (JPAC), a group of five citizens from each country; and a Secretariat.

The 2003–2005 program plan sets forth the work plan for this triennium, continuing in its implementation of NAAEC. It reflects the Council's vision for deepening cooperation, by pursuing the twin goals of furthering environmental sustainability in open markets and stewardship of the North American environment.

The 2003–2005 program plan is centered around four core program areas: Environment, Economy and Trade; Conservation of Biodiversity; Pollutants and Health; and Law and Policy. Within these areas, a number of programs are set out to further the goals and objectives of NAAEC. Specific projects are presented as a means to implement the goals of the programs. The programs will continue to evolve over a three-year cycle in response to the results achieved each year.

In June 2001, the CEC Council established a long-term strategic framework for the work of the institution, reaffirming its commitment to regional environmental cooperation in the context of deeper economic, social and environmental linkages. The strategic framework incorporates six key elements:

- gathering, compiling, and sharing high-quality environmental information,
- promoting the use of market-based approaches,
- cooperating regionally in the implementation of global commitments,
- building capacity for stronger environmental partnerships,
- strengthening strategic linkages to improve sustainability, and
- promoting public participation in the CEC's work.

Within this framework, Council, at its June 2002 meeting, directed that initiatives either be launched or further advanced in the following areas:

- Energy and Environment
- Children's Health and the Environment
- Sound Management of Chemicals
- Hazardous Waste
- North American Pollutant Release and Transfer Register
- North American Partnerships for Sustainable Development
- Trade and Environment
- Finance and Environment
- Corporate Environmental Stewardship

In addition, Council asked that working relationships with the International Joint Commission and the International Boundary Waters Commission be strengthened.

The 2003–2005 CEC program plan responds to these directions from Council, maintains the pace in key aspects of current work, and retains flexibility to respond to new challenges and opportunities.

The content of the three-year program plan builds on previous consultations and evaluative exercises. In particular, during the past seven years, JPAC has convened public workshops in each of the NAFTA countries to seek input and advice on future directions for the organization. Following the public consultations, JPAC formulated specific advice and reports to Council on the strategic direction of the organization.

The 2003–2005 program plan also takes account of a number of key recommendations made by other advisory bodies, including the national and governmental advisory committees. Additionally, the plan incorporates numerous suggestions made by members of the private and public sectors currently engaged in related work, including, for example, con-

sultations undertaken on specific initiatives, such as the Sound Management of Chemicals, the North American Pollutant Release and Transfer Register, the Article 13 work on restructuring of electricity markets in North America, and evolving work on energy and climate change.

CEC Mandate and Roles

The scale and scope of emerging environmental issues of regional concern call for an unprecedented degree of cooperation between and among Canada, Mexico and the United States. The CEC is mandated to help build consensus and a shared understanding of the nature, scope and magnitude of the environmental challenge in North America, and facilitate actions to address it.

The CEC promotes sustainable solutions to preserve and protect North America's natural systems by working in partnership with a growing number of private and public actors at the local, regional and global levels. Through these partnerships, the CEC can maximize the impact of its actions and avoid duplicating the work of others by clearly defining its role—as convenor, catalyst, and a center for policy, research and information at the North American level—depending on the issue being addressed. The three-year program plan presents a combination of actions and strategies employing one or more of these functions, depending on the stated objectives of the activity.

Convenor

The CEC constitutes a unique regional forum for exploring trends, bringing key players together to develop solutions or simply exchanging views on important issues of environmental protection, conservation and sustainability and environment-trade linkages. Because the CEC involves the three North American governments as well as the public through its Council, advisory committees, and Joint Public Advisory Committee, the institution is ideally positioned to play the role of the “honest broker”—to convene stakeholders from the public and private sector, and build bridges of understanding that can facilitate environmentally-preferred results.

Acting as convenor, the CEC can also facilitate the coordination of initiatives on a regional scale to enhance the efficient use of scarce human and financial resources. Network building among the scientific, academic and other nongovernmental communities will help to build capacity in North America, and remains an important strategy for public participation in the work of the CEC.

Catalyst

The CEC also can act as catalyst in North America to spur on worthwhile existing initiatives, undertaken largely by others. In this capacity,

the CEC serves as an engine to accelerate the regional implementation of global initiatives or accords. Through partnering and collaboration, the CEC also boosts promising initiatives requiring modest technical or financial support, greater regional profile, or improved coordination. The unique government-public constitution of the CEC again provides exceptional opportunities for catalyzing incipient actions to produce meaningful results.

Research and Policy Analysis

With its trilateral staff of professionals, the expertise of governments and the growing network of scientific and academic communities involved in the work of the institution, the CEC brings high-quality research and policy analysis to bear on important environmental matters of regional concern. As a regional center of research on policy and the scientific aspects of regional environmental issues, the CEC continues to provide objective, science-based information and guidance to policymakers and the public-at-large.

Information

In a short period of time, the CEC has established itself as an important repository of regional data and information on the North American environment. The organization's reports, factual records, and databases empower citizens and governments by providing important regional information on our shared environment and the policies employed to protect it.

The Program

Work of the CEC is focused around four program areas:

- Environment, Economy and Trade
- Conservation of Biodiversity
- Pollutants and Health
- Law and Policy

Objectives are defined for each program. Then, specific projects or activities are described that will accomplish these objectives. Projects may be implemented through a variety of means, tailored to best meet the circumstances and needs of the CEC and our partners. Following scoping, project implementation may involve a variety of actions or strategies. Often, pilot phases are used to test or deploy a model or strategy in a particular locale or region. The results of such pilots may provide models for others to replicate and permit designers to refine and improve strategies before expending greater resources and energy on larger-scale efforts. Projects may also employ teams of experts, working groups, multi-stakeholder committees or others to meet the objectives of the program area.

Capacity building is a very important element of designing the work program. Capacity building may be tailored to serve the particular needs of one or more of the countries. North America is fortunate to have many experts in the three countries who can be called upon to assist in defining issues, bringing scientific expertise, offering technological and

other solutions, elaborating institutional mechanisms—all of which help contribute to a capacity-building role that the CEC can fulfill.

The three-year program plan includes a variety of projects spanning the spectrum from initial scoping through the later phases of project implementation. In some cases, projects are designed to end within a specified period or are intended to be picked up and advanced by other institutions or integrated into ongoing government programs.

Public Participation and Capacity Building

Public participation and capacity building in North America are central to the realization of many of the goals and objectives of sustainable development outlined in the program plan. The three-year program plan attempts to integrate capacity building and public participation activities directly into the project descriptions, adopting a holistic, crosscutting approach to program development and planning.

Many of the actions initiated by the CEC in pursuit of its mission and mandate are designed to maximize opportunities for public participation and capacity building. NAAEC embodies the commitment and belief that environmental protection and conservation efforts are enhanced and multiplied through strong mechanisms for public participation. To the greatest extent possible, the CEC incorporates effective and timely means of participating in its activities directly into specific programs and projects.

Similarly, the Parties recognize that lasting environmental protection and conservation strategies can only be sustained by building national capacities to design, implement and maintain the policies and measures that are adopted in the region. Accordingly, the CEC also builds capacity-building mechanisms, such as training, scientific and technical exchange and education, directly into the three-year program plan. As well, the North American Fund for Environmental Cooperation (NAFEC) constitutes an important mechanism for increasing the involvement of community groups in the work of the CEC and for enhancing their capacity to address environmental concerns.

Results

The three-year program plan clearly sets forth an ambitious agenda for cooperation whose success will be easily measurable, given the clear-stated objectives of each of the projects. For the institution as a whole, the CEC will continue with the following strategic objectives:

- Develop and promote policies in support of environmental protection in the context of expanded economic integration in North America.
- Facilitate the development of coordinated solutions to trans-boundary and continental-scale environmental challenges facing North America.
- Provide a reference point for reliable environmental information.

As a final note, all project-related dollar amounts in the report are given in Canadian dollars (C\$), except where otherwise noted.

I – Environment, Economy and Trade

Understanding Linkages between Environment, Economy and Trade

1.1.1 *Assessing the Environmental Effects of Trade*

Market-based Mechanisms for Environmentally-preferable Goods and Services

1.2.1 *Trade in Environmentally-preferable Goods and Services*

1.2.2 *Financing in Support of Environmental Protection and Conservation*

II – Conservation of Biodiversity

North American Biodiversity Conservation Strategies

2.1.1 *Strategic and Cooperative Action for the Conservation of Biodiversity in North America*

Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

2.2.1 *North American Bird Conservation Initiative*

2.2.2 *Terrestrial Species of Common Conservation Concern*

2.2.3 *Marine Species of Common Conservation Concern*

2.2.4 *North American Marine Protected Areas Network*

2.2.5 *Closing the Pathways of Aquatic Invasive Species across North America*

Improving Information on North American Biodiversity

2.3.1 – *North American Biodiversity Information Network*

III - Pollutants and Health

Cooperation on North American Air Quality Issues

3.1.1 *Cooperation on North American Air Quality Issues*

Sound Management of Chemicals

3.2.1 *Sound Management of Chemicals (SMOC)*

North American Pollutant Release and Transfer Register

3.3.1 *North American Pollutant Release and Transfer Register (PRTR)*

Pollution Prevention

3.4.1 *Capacity Building for Pollution Prevention*

Children's Health and the Environment in North America

3.5.1 *Children's Health and the Environment in North America*

IV – Law and Policy

Environmental Standards and Performance

4.1.1 *Comparative Report on Environmental Standards*

4.1.2 *Environmentally Sound Management and Tracking of Hazardous Waste*

Enforcement Cooperation

4.2.1 *Enforcement and Compliance Cooperation*

Environmental Policy

4.3.1 *Sustainable Use and Conservation of Freshwater in North America*

4.3.2 *Environmental Management Systems to Promote Compliance and Environmental Performance*

V – Other Initiatives of the CEC

Specific Obligations under the Agreement (SOUN)

North American Fund for Environmental Cooperation (NAFEC)

The Joint Public Advisory Committee (JPAC)

The Environment, Economy and Trade program has three goals:

- (1) to continue improving our understanding of the environmental effects of free trade and related economic integration in North America, as well as to identify opportunities for policy integration between environmental and trade policies in a manner that actively promotes transparency and public participation;
- (2) to identify opportunities among the NAFTA partners for cooperation and trade in environmental goods and services, including renewable energy and energy efficiency; and
- (3) to strengthen partnerships with the private financial services sector in the area of finance and the environment.

These objectives will be addressed through three projects:

Understanding Linkages between Environment, Economy and Trade

- Assessing the Environmental Effects of Trade

Market-based Mechanisms for Environmentally-preferable Goods and Services

- Trade in Environmentally-preferable Goods and Services
- Financing in Support of Environmental Protection and Conservation

1.1.1 Assessing the Environmental Effects of Trade

Project Summary

The CEC is unique among intergovernmental organizations in its mandate to examine, on an on-going basis, the environmental effects of a trade agreement. This project builds upon the extensive work undertaken over the first seven years of the CEC's existence to fulfill this mandate by furthering our understanding of the environmental effects of free trade and related market integration. The project, therefore, continues the work already undertaken in environmental assessments and reviews of free trade and consists of the following main elements:

- (a) Continue to further our understanding of the environmental effects of free trade and related market integration at the sector-specific level. Work will build upon this project's analysis of the effects of liberalization in the energy and agricultural sectors, as well as related institutional issues. In addition, the project could examine, depending on symposium results, two additional sectors such as the manufacturing and services sectors which each represents, that approximately 15 percent of total trade in North America could also include the environmental effects of increased international transportation.
- (b) Combine more familiar environmental assessment methodologies and approaches to environmental assessments of free trade (i.e., that predict economic changes and infer environmental consequences from these economic changes subsequently) with new environmental assessment approaches. In this context, continue to test the feasibility of using an "environment-first" methodology (that is, one that develops scenarios for particular loci of interest, such as airsheds, watersheds, or an ecosystem, of the potential impacts of increased trade with local environmental experts and trade experts) as a relevant methodology to conduct environmental assessment. Examine how this approach could build upon work underway, data collected, and analyses completed in other CEC program areas, including work on: air quality or freshwater resources, the transfer and management of chemicals and toxic substances, on priority eco-regions in North America or on species of common concern, using various geo-spatial analyses.
- (c) Facilitate an open, transparent dialogue to identify options for integration of trade and environment policies (using *ex post* environmental assessments of trade to guide *ex ante* analysis and mitigating policies). This work will build upon the technical workshops that took place in January 2002, as well as the lessons of the second North American Symposium to take place in 2003.
- (d) Based on the expertise developed during this project's seven years, coordinate the tenth anniversary review of environmental effects of NAFTA, in cooperation with JPAC, other program areas, research institutes, nongovernmental organizations, the private sector, civil society, and others.

The project combines two formerly distinct project areas: NAFTA Effects—which involves a backward-looking (*ex post*) approach to identifying the impacts of trade on environmental quality and policy—and Emerging Trends, which comprises a forward-looking (or *ex ante*) tool intended to highlight key environmental challenges to the years 2010 to 2020.

Goals and Objectives

The aim of the 2003–2005 work plan is to advance the understanding of linkages between environment, economy, and trade, with the longer-term goal of formulating the integration of trade and environmental policies in such a way that any significant environmental impacts of trade are identified, quantified if possible, and environmental policy responses enacted. Similarly, policy responses that identify positive environmental outcomes of free trade will be identified as potential best practices. Lessons learned in *ex post* analyses will be integrated into *ex ante* analysis to better inform policies and favor the harmonization of trade and environment and trade policies. Lessons from *ex post* analyses could be applied to future trade agreements such as the FTAA, the Doha Round and other bilateral agreements that the three countries are undertaking. While progress has been made in recent years in methodologies and sector-specific analysis, there remains a gap between trade assessment work and the broader arena of environmental analysis and responses.

Specific objectives include:

- (1) refining assessment methodologies and approaches, including comparing the findings of *ex ante* and *ex post* environmental assessments;
- (2) improve the understanding of impacts at the sector-specific level and identifying dynamic effects that occur between sectors;
- (3) continuing to identify opportunities for the integration of environmental and trade policies as a result of environmental assessments of trade; and
- (4) promoting a proactive approach to maximize the transparency of such assessments and mechanisms to ensure meaningful public participation of such assessments.

To achieve these goals, the project combines lessons of backward and forward-looking assessments of trade in specific sectors. In isolation, *ex post* analysis is more like an autopsy, while *ex ante* work has the goal of initiating anticipatory policies, albeit without a robust empirical base. By combining what is known from *ex post* analysis to help define and refine probable scenarios under *ex ante* work, improved policy analysis should result.

The "environment-first approach" also enhances policy relevancy of environmental assessments of free trade by engaging mainstream envi-

ronmental experts working in for example air or water quality, hazardous wastes, protected areas, etc., with trade experts in the assessment work. This approach builds upon the preliminary work done by the CEC in using spatial analysis and GIS mapping techniques, to highlight environmental effects that are concentrated in specific geographic regions.

Expected Results

- High-level, biannual North American Symposium on Assessing the Environmental Impacts of Trade. The papers presented and discussed are selected by the Environmental Assessment of Trade Advisory Group from abstracts submitted to the Secretariat pursuant to a public call for papers. This invitation stipulates that authors of proposals apply the methods laid out in the Analytic Framework developed over the first five years of this project. A symposium will be held in March 2003 and the following symposium is expected to take place in the spring of 2005.
- Improved policy-relevancy of environmental assessment of trade through integrated backward and forward analysis of assessment work, data baselines and relevant indicators, combining traditional approaches to an “environment first” approach, and moving the discussions and policy attention from a polarized debate over the general environmental effects of the NAFTA and other trade liberalization agreements to a greater focus on specific areas of concern.
- Increased cooperation among experts in the three NAFTA countries, leading to more comparability of data and approaches, thus facilitating a true environmental assessment of trade in North America.

Rationale

In 2000, total trade among the three NAFTA partners amounted to roughly US\$630 billion. In addition, cross-border investment flows have soared since 1994. As trade and investment flows have increased, so too has the exchange of technologies, management practices, and regulatory experience among Canada, Mexico, and the United States.

As market integration and economic globalization proceed, environmental policy continues to face new challenges as well as opportunities. Among the challenges for environmental policy makers is the need to ensure that standards, norms, and regulations are sufficiently robust to anticipate and mitigate new ecological stresses as the scale of overall economic activity expands. Experience suggests that these challenges include changes in the intensity and type of environmental problems related to trade expansion. Among the opportunities that arise from market integration is the ability to recognize and take advantage of the extent to which new technologies, environmental management practices, market-based approaches, consumer awareness and values themselves are shared among countries. This project will focus on improving the identification of policy options that arise as the relationships between environment, trade, and sector-specific areas are clarified. The rationale for this work is found in NAAEC Article 10(6)(d), which provides for the consideration on an ongoing basis of the environmental effects of NAFTA.

A guiding assumption of the project is that rigorous environmental assessments, based on extensive data and appropriate quantitative models and robust futures work provide a strong foundation upon which policy responses can be built. Accordingly, an important emphasis of the project is to provide policy-relevant environmental assessments. Analysis done through this project and others shows that, at the aggregate level, the environmental impacts of free trade are marginal. However, when disaggregated, analysis suggests a concentration of some environmental impacts in specific geographic regions, and the presence of peaks or troughs in key environmental indicators, justifying an approach to the analysis that is sectoral and environment-first.

The CEC has been documenting the environmental impacts of increased trade, including NAFTA, on the agriculture and energy sectors, and depending on results of the second North American symposium, will initiate work in the manufacturing and/or services sectors—including increased transportation effects.

Progress to Date

This project, focusing on assessing the environmental effects of NAFTA, was initiated in 1995 and resulted in the final draft of the *Analytic Framework*, released by Council in 1999. Following a public call to submit proposals that would apply the methods of the *Analytic Framework* to a case study, fourteen original research papers were selected. These were presented at the CEC-sponsored first North American Symposium on Assessing the Environmental Effects of Trade, in October 2000 in Washington, DC. The symposium proceedings were published in 2002, along with a short “lessons learned” report, which highlights key results of the research papers and the discussions and presents related analysis.

In late 2001, eight additional research papers and reports were released, covering a range of methodological and sector-specific issues. These included a comparison of backward and forward environmental assessments of trade; the relationship between trade liberalization and agro-biodiversity; the effects of trade liberalization on traditional maize varieties; and an overview of methodologies. Related work undertaken by the Secretariat in 2002 includes completion of the Article 13 Environment and Electricity report, which quantified possible changes in air pollution linked to market liberalization. Within the CEC Law and Policy program, an assessment was undertaken of environmental standards related to intensive livestock operations. A meeting of experts, research centers, NGOs, government representatives and intergovernmental organizations was held in Montreal in January 2002, and its proceedings highlight the lessons learned and next steps in this work on environmental assessments of trade. A short document summarizing lessons learned has also been published and is being used to promote the second North American Symposium on Trade and the Environment.

Actions 2003 – Overview

Activities in 2003 will focus on:

- (a) continuing the analysis of the environmental effects of free trade; work in this area will draw upon lessons learned from both the backward and forward environmental assessments of trade liberalization accords and changes in trade flows; analysis will continue to focus on sector-specific approaches, including further examination of the agriculture and energy sectors, as well as the manufacturing and services sector;
- (b) further developing an “environment-first” approach to environmental assessments, in which analysis engages mainstream environmental issues through the use of spatial analysis and references to core environmental indicators and baselines;
- (c) examining options arising from environmental assessment of trade related to the integration of environment and trade policies, or the development of new policies or policy-related institutional responses;
- (d) examining new ways to promote meaningful public participation in the trade-environment arena related to assessments; and
- (e) coordinating the ten-year review of the environmental effects of NAFTA, in cooperation with key partners.

The 2003 program will build upon policy recommendations of the second North American Symposium on Assessing the Environmental Effects of Trade, to be held in early 2003. Lessons from that public meeting, and the CEC’s work more generally, will provide guidance to, and be incorporated into the efforts of Council to undertake a 10-year review of the environmental effects of NAFTA.

2003		Estimated Resources Required (C\$)
Action 1	Further our understanding of the environmental impacts of trade within and between economic sectors in North America	90,000
Activity 1	<i>Building on the research papers presented at technical workshops and the second North American symposium, further the analysis of the environmental effects of trade liberalization in the agricultural and energy sectors, and undertake analysis in additional sectors depending on results of the second North American symposium, such as the manufacturing and services sector</i>	75,000
Activity 2	<i>Identify common environmental data baselines that can be used to enhance the comparability of backward and forward environmental assessments of trade. Cooperate with agencies working on environmental indicators, including UNEP, OECD, and others</i>	15,000
Action 2	Continue to test an “environment-first” approach to environmental assessments of trade	95,000
Activity 1	<i>Develop information tools to support this analysis, using GIS and geo-spatial mapping tools that convey the environmental effects of trade-related environmental impacts (these resources could be used to support in-house capacity with other programs, or to hire consultants to do the analysis)</i>	25,000
Activity 2	<i>Using shared (bilateral or trilateral) North American airsheds, watersheds, terrestrial or marine areas of common ecological concern, or trends in toxic releases and chemicals (e.g., data from the Taking Stock, NABCI, and SMOG initiatives) as a reference, and the information set and analysis they have accumulated, host 2–3 technical meetings with experts, NGOs, government representatives and others involved with the specific environmental media—such as air, water quality, biodiversity—on the effects of increased trade on these media and possible management and policy responses</i>	70,000
Action 3	Organize a public meeting, in cooperation with JPAC and other stakeholders, to identify mitigating policies based on experts’ knowledge and <i>ex post</i> analyses to better harmonize trade and environmental policies	25,000
Action 4	Contribute to the 10-year assessment of the environmental effects of NAFTA	250,000
Activity 1	<i>Develop, in collaboration with the three Finance Departments of the three Parties, an economic baseline of economy-wide and sector-level changes that can be attributed to NAFTA and to increased trade in general</i>	40,000
Activity 2	<i>With the help of the an Advisory Group, compile analyses on NAFTA-related environmental effects, including: a compilation of CEC-studies; and appropriate studies undertaken by the Parties, international organizations such as UNEP and OECD, research centers, and nongovernmental organizations</i>	120,000
Activity 3	<i>Host public meeting(s) to seek public input on the scope of the analysis</i>	60,000
Activity 4	<i>Prepare a 10-year NAFTA effects report</i>	30,000
Total Resources Required		460,000

Actions 2004–2005

The project will continue to refine the methodology to assess the environmental impacts of trade, to foster the development of scientific evidence of the environmental impacts of trade, and to find innovative ways by which these results can be incorporated into policymaking, such as by conducting more meetings focused on the environmental theme and its links to trade. Further analysis of sectors already studied and additional sectors will be continued since existing evidence is still scarce. The selection of what sector and areas to study will be guided by results of the CEC symposium, by the importance of these sectors in North American trade, by the size of the sector's potential impact on the environment, and areas of environmental concerns.

In June 2002, following the creation of an Advisory Group on Assessing the Environmental Effects of Trade, a second public call for papers was issued. Approximately 10 original research papers focusing on the agriculture and energy sectors were selected, and will be presented at the second North American Symposium on Assessing the Environmental Effects of Trade, to be held during a week-long event in Mexico city. The week will start with a JPAC session on Chapter 11, followed by the CEC symposium on agriculture and energy in collaboration with UNEP, 25 and 26 March, and ending with a two-day UNEP workshop in collaboration with the CEC to transfer CEC knowledge about environmental assessments of trade, as well as of Mexico's experience more particularly, to the other Latin American countries that are preparing for the FTAA.

Public Participation

A guiding objective of the CEC's work in assessing the environmental effects of trade is to promote the highest level of transparency and meaningful participation of the public in environmental assessments and the identification of policy options arising from assessment work. Examples of efforts to include key stakeholders is the second public call for papers, issued in June 2002; the hosting of the second North American Symposium on Assessing the Environmental Effects of Trade, to be held in early 2003; as well as the posting of working papers for public comment, and the participation of NGOs and members of the public in various technical meetings and workshops. This fundamental commitment to public participation will continue in 2003, as the CEC prepares the 10-year review of the environmental effects of NAFTA.

Capacity Building

The project's work in capacity building helps to develop a broader understanding of trade and environment linkages. The transparent and open approach used by this project—by inviting all groups and individuals to present analyses that use the *Analytic Framework* to assess the environmental impacts of trade liberalization and trade—has helped to build capacity within groups of civil society in North America and has encouraged the creation of networks of researchers and groups charged with undertaking analyses of the environmental effects of trade.

Expected Partners and/or Participants

Partners to continue the work of understanding the environmental effects of economic policies will be actively sought out. These include the World Resources Institute, the Organisation for Economic Cooperation and Development (OECD), the World Trade Organization, the UN Commission for Sustainable Development, the UN Convention on Biodiversity Secretariat, the World Bank, research centers, NGOs, and others.

Linkages to other CEC Projects

Given the interdisciplinary nature of this project, activities will be closely coordinated with a number of other CEC projects and activities and will draw upon environmental data made available through them. These will include NABIN and others in the Conservation of Biodiversity program area, the three main areas of the Pollutants and Health program area, and Law and Policy.

1.2.1 Trade in Environmentally-preferable Goods and Services

Project Summary

The project builds upon previous work in the areas of green goods and services, financing and the environment, and market-based mechanisms for carbon sequestration, energy efficiency, and renewable energy in North America. In addition, it explores the opportunities raised in the context of the CEC's Article 13 report on electricity and the environment, as well as the Johannesburg implementation program on renewable energy (chapter 19), and government procurement. The project continues to develop tools intended to facilitate increased trade in environmentally-preferable goods and services, including environmental labeling and certification (and related cooperative approaches such as equivalency and mutual recognition) and green procurement and purchasing initiatives as they relate to international trade (including ongoing support for the North American Green Procurement Initiative/Network and for the Sustainable Consumption Alliance). It continues the assessment of potential retail/consumer demand for environmentally-preferable goods and services (including measuring consumer willingness-to-pay for green goods and services); the identification of environmental opportunities related to renewable energy markets, advances in energy efficiency; and detailed work in sustainable coffee and sustainable agriculture, renewable energy, office products, *Chamaedorea* palm, and other selected product areas. With respect to renewable energy, the Commission has been conducting research on many aspects of renewable energy in North America including: the environmental benefits of renewable energy; the barriers and opportunities to its broader development; market-based mechanisms which can and are being used to expand its use; as well as an in-depth analysis into renewable portfolio standard criteria and a legal analysis of their potential trade implications under NAFTA.

Goals and Objectives

The key objective of this project is to make better use of market-based approaches to support environmental protection and the conservation and sustainable use of biodiversity. It does this by increasing awareness about the environmental benefits of environmentally-preferable goods, supporting cooperative efforts to increase these programs (e.g., renewable energy and energy efficiency), and facilitating trade expansion in these goods and services in North America. This objective is attained by strengthening North American cooperation in trade in environmentally-preferable goods and services. The project identified a number of barriers along the product commercialization chain that limit the market expansion of environmentally-preferable goods and services, and is helping to remove them. It is working on a number of activities related to various stages along the product or service "chain," from enhancing the criteria related to the definition of "green" or sustainable products and services, to examining opportunities for sustainable consumption. Finding innovative market-based approaches to support these markets is an explicit part of the project.

The project will continue to address these distinct stages in the market chain of environmentally-preferable goods and services, including:

- estimating, and where possible quantifying, the relative environmental benefits of selected "green" goods and services, including renewable energy markets;
- estimating the economic value of environmental goods and services and trends in patterns of international trade;
- supporting transparency and cooperative approaches to voluntary environmental labeling and certification schemes, including examining the relationship between criteria setting for different label/certification schemes and best practices of standard-setting bodies more generally;
- contributing, in collaboration with relevant international organizations, to documenting the environmental and economic impacts of various environmentally-preferable goods and services, including renewable energy, through scenario analysis in a manner that is transparent and science-based;
- continuing and expanding the CEC database on renewable energy and energy efficiency programs and product areas, with the goal of increasing transparency and comparability at the North American level;

- supporting targeted public awareness and environmental education programs by identifying model projects and best practices in environmentally-preferable goods and services, including renewable energy and energy efficiency initiatives;
- supporting a more transparent and efficient exchange of information among public and institutional procurement groups to avoid the duplication of effort and to increase efficiency in this important area;
- continuing to study the market potential for environmentally-preferable goods and services, including undertaking market analyses; such analysis will build upon the project's previous work in the areas of coffee, *Chamaedorea* palm, sustainable tourism, renewable energy and more omnibus surveys of environmental issues;
- identifying export opportunities for producers and manufacturers, and for small and medium-sized enterprises in particular, in environmentally-preferable goods and services;
- examining opportunities for the development, diffusion, and transfer of renewable energy capital goods, including examining transmission and distribution issues;
- identifying possible impediments to trade in environmentally preferable goods and services, in collaboration with relevant international organizations and the mechanisms to reduce or eliminate such impediments; and
- improving analysis and policy options regarding the role of governments in supporting voluntary market-based mechanisms (e.g., the removal of barriers, increasing awareness, etc.), and helping to identify the appropriate role of the private sector (e.g., corporate responsibilities) and NGOs (e.g., training and awareness) in developing markets for green goods and services.

In the case of renewable energy and energy efficiency, based on the recommendations of the Secretariat's Article 13 report, the June Council recommendations, and the work on market-based mechanisms for carbon sequestration, energy efficiency, and renewable energy in North America, the key objectives include strengthening the environmental case for renewables, through (for example):

- facilitating a cooperative approach to estimating the environmental benefits of renewable energy and energy efficiency;
- identifying potential market and other barriers to renewable energy markets, including barriers and opportunities to market-based approaches to renewable energy markets;

- exchanging information, as appropriate, with relevant groups and organizations, including NAEWG, on energy efficiency; and
- promoting continued dialogue on the definition of renewable energy, and identifying best practices regarding renewable energy and energy efficiency that can be replicated.

These goals will be further elaborated following the March symposium on trade and the environment that focuses on agriculture and energy.

Expected Results

- Increased coordination and cooperation in activities that promote environmentally-preferable goods and services in North America, which should lead to the expansion of production, consumption, and trade in these goods and services in North America, including renewable energy and energy efficiency.
- Enhancing the transparency and comparability of environmental labeling schemes.
- Achieving more environmental protection within the constraints of limited budgets by linking the various players, avoiding duplication of efforts.
- The minimization of trade conflicts over environmental goods and services, including labeling issues, by strengthening the environmental case for these goods and services, the cooperation among users, producers, certification bodies, standard-setting bodies, and green procurement networks in North America, as well as through the use of innovative uses of market-based approaches.
- Strengthened North American cooperation for lowering the costs of renewable energy use and energy efficiency through a continued dialogue on the definition of renewable energy, and improved information about market-based mechanism opportunities.

The results are improved environmental quality and the conservation and sustainable use of biodiversity in North America.

Rationale

For the past decade or more, there has been strong interest in “harnessing the power of the market” in support of environmental objectives and in demonstrating that trade can promote environmental protection. For several years, a number of organizations, including the CEC, OECD, the United Nations Conference on Trade and Development (UNCTAD), and the United Nations Environment Programme (UNEP), among others, have examined specific segments of this broader goal. In late 2001, the World Trade Organization (WTO) Doha ministerial declaration highlighted the issues of trade liberalization of environmental goods and services and gave new impetus to supporting market-based approaches to environmental protection. Experience accumulated in this project to date underscores the importance of working at different stages of the product and/or services chain in order to identify specific barriers and opportunities within these alternative markets. Some of these barriers that continue to constrain the potential benefits of environmentally-preferable goods and services include: information failures between producers and consumers; difficulty in the classification of “green” goods and services; relatively high transaction costs for small and medium-size producers in meeting the costs of environmental labeling and certification; low levels of consumer information (awareness) about the environmental effects, or footprint, of their purchasing habits; and gaps in environmental education more generally (“Lessons Learned from the Work of the CEC on Environmental Goods and Services,” Background Note for JPAC Public Meeting Guadalajara, Jalisco, Mexico, Thursday, 28 June 2001).

The inclusion of renewable energy and energy efficiency in this project brings into operation core elements contained in the Council communiqué of the ninth regular session of the CEC Council and other recommendations presented in the Article 13 report on electricity and the environment. As electricity generation and distribution and energy trading expand among the three NAFTA countries, protecting the North American environment is an increasingly complex challenge. After receiving a briefing on the activities of the North American Energy Working Group, the Council agreed that the CEC should pursue its efforts in a complementary fashion to those of the North America Energy Working Group. To do so, the Council recommended the creation of the North American Air Working Group, to be housed in the Pollutants and Health program area and conducted in collaboration with the Environment, Economics and Trade program as appropriate. A number of recommendations have been made that are relevant to this project: continuing the Secretariat’s work on renewable energy, including pursuing the dialogue on the transparency and scientific and technical basis of renewable energy definitions; supporting further analysis related to the environmental aspects of renewable-energy market development; fostering public awareness and education; enhancing the consistency of databases; exploring the development and commercialization of emerging renewable low-impact energy technology; looking at the transmission and distribution

of emerging renewable electricity; and promoting energy efficiency and combined heat and power. In addition, this initiative will collaborate with the Pollutants and Health program to identify, explore and address issues related to the barriers, challenges, opportunities, and principles under which emissions-trading systems might evolve (following up on work initiated in 2002 on market-based mechanisms for carbon sequestration, energy efficiency, and renewable energy).

Progress to Date

Among the lessons learned from previous work on green goods and services and market-based mechanisms thus far is that translating broad objectives of “win-win” environment-economy relationships into concrete outcomes requires analysis, capacity building, information sharing, and much dialogue among different groups within specific market segments. Progress in translating sustainable use and conservation goals into a market reality requires the linking of micro-economic analysis with appropriate capacity building, networking, and other areas.

The project has benefited from several CEC initiatives, including its ongoing work on shade-grown coffee, the *Chamaedorea* palm (transferred in 2001 from the Trade in Wildlife Species project to the Green Goods and Services project), and sustainable tourism. In understanding the environmental dimensions of these products, the project built upon lessons learned from work with the following initiatives: the Smithsonian Migratory Bird Center and its work on defining criteria for producers of “shade-grown coffee” (2000); the International Center for Research in Agroforestry (ICRAF) in assessing the environmental effects of shade-grown coffee, and shade agriculture generally, on flora, birds, mammals, reptiles, and biodiversity (2001); Mexico’s National Institute for Geography (INEGI), in clarifying the link between areas of rich biodiversity and small-scale farm production (2001); Resources for the Future (RFF), in understanding rates of forest conversion in Mexico due to coffee production (2001); and preliminary results from work on the *Chamaedorea* palm in Mexico (2002), and results from the sustainable whale watching project in the Baja to Bering priority ecological region.

The project consolidates lessons learned from previous market assessments of demand-side issues done under the Green Goods and Services project and the market-based mechanisms project. This includes the most extensive North American consumer analysis of potential demand for shade-grown coffee (1999); a market study of consumer interest in sustainable tourism (2001); a market assessment and experts meeting on the *Chamaedorea* palm, with an emphasis on price and export volume fluctuations at the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*, Conabio (2000) and CEC Montreal (2001); an assessment of industry attitudes to green goods and services, including institutional procurement issues (2001); an industry market survey of sustainable coffee; and (in conjunction with the *Comisión Nacional para el Ahorro de Energía*—Conae) a survey

of 100 of the largest commercial electricity consumers in Mexico, measuring interest in, and willingness to pay for, renewable electricity (2001) and a follow-up survey of constraints and opportunities in purchasing renewable energy in Mexico, also with Conae.

A main focus of the project continues to be the challenges facing small-scale producers and providers, communities, and intermediaries in supporting green markets. Experience suggests that a major cause of market failure in green markets is the separation of different market actors. Increasingly, the role of NGOs in filling this gap is being recognized. For instance, many meetings, workshops, and seminars have been convened with small-scale producers, including: coffee farmers and cooperatives (Oaxaca, March 2000, and San Cristóbal, 2001); sustainable tourism operators and other stakeholders to develop market-based approaches to sustainable tourism (La Paz, March 2001); and electricity producers and consumers (November 2001).

An exploratory meeting was hosted by the CEC in Montreal, 18 September, on the need for collaboration on green purchasing at the North American level. Participants represented the CNAD, TCI, EPA, EC, Semarnat, Inform, Green Seal, Industry, purchaser groups, ICLEI, CCC, and the CEC. A presentation by each NAFTA government's environmental agency/ministry on its purchasing behavior was followed by the compilation of a list of constraints to fostering green purchasing facing these agencies in their governments. The goal was to move from problems, to the tasks, and then to a structure to accomplish those tasks that are better addressed at a trilateral level. It was decided to produce a scoping report documenting the trends in green procurement in North America at the municipal, state/provincial and federal level, as well as associated environmental impacts. The report was produced to demonstrate the potential of green procurement in developing both economic and environmental benefits. Three meetings were also hosted in the three NAFTA countries with the North American Sustainable Consumption Alliance to scope the potential to join forces to make consumption more sustainable in the three countries.

This work complements the CEC's work on community partnerships in support of green goods, including with various small-scale farmers and cooperatives (2001), leading to the newly created Mexican Council for Sustainable Coffee. It also builds on the valuable lessons and networks that have arisen from the North American Fund for Environmental Cooperation (NAFEC) project work. The project has also convened several meetings with producers and brokers of coffee and other products to provide information on market opportunities for shade-grown farm produce, including the *Chamaedorea* palm, and other goods. These include meetings with coffee buyers and brokers (New York, Miami, and Montreal, 2001) and with Banamex, the *Consejo Mexicano del Café* and the World Bank to explore the best role of governments and international organizations (see "Project Status Update: The North American Sustainable Agriculture Fund"). Another major focus of this work has been to improve the transparency and comparability of market and consumer information related to green goods and services. Examples of its work thus far in this area include the overview report on environmental labeling, certification, and procurement schemes in place in North America (1999), the release of *Final Report: CEC's Sustainable Tourism in Natural Areas Project 2000–2001*, and the release of an updated version of four searchable databases for green goods and services covering:

- (a) coffee labeling and certification schemes;
- (b) sustainable tourism certification schemes, codes of good practice, voluntary guidelines, and other initiatives;
- (c) office products, with an emphasis on energy efficiency related products; and
- (d) green electricity, studying third-party certification schemes for green electricity and their criteria, environmental marketing guidelines for electricity, renewable electricity definitions and renewable portfolio standards (RPSs) from electricity restructuring legislation, along with other information.

The databases are available at: <http://www.cec.org/pubs_info_resources/databases/index.cfm?varlan=english>. In addition, in 2002 NAFEC supported the promotion of solar coffee dryers in rural Mexico, wind power in Canada, and energy efficiency in the United States. The palm commercialization report is being translated and will be published in the three languages. The CEC is pursuing the commercialization potential with church-based groups, one of the largest consumers of the palm in North America.

Actions 2003 – Overview

In 2003, this project will continue to search for innovative ways to promote sustainable production, consumption, and conservation, with a specific examination of the relationship between green labeling/certification and procurement, and the mutually supporting role they can play in expanding trade in environmentally-preferable goods and services. The project builds upon lessons learned in examining green markets, helping to identify options for policies that support private markets for green goods and services, including pricing, incentives, and procurement options.

2003		Estimated Resources Required (C\$)
Action 1	Enhance the transparency and comparability of environmental labeling and certification schemes	95,000
Activity 1	Expand the CEC database for selected environmental labeling and certification schemes and guiding definitions by combining CEC, EPA, Environment Canada, Terra Choice, etc., data to provide a one-stop site for information in North America; provide an empirical analysis of the comparability of environmental and related criteria; and identify data-gaps and opportunities for increased cooperation in data gathering and sharing among the North American partners, including for renewable energy	55,000
Activity 2	Host two technical workshops with key stakeholders of different labeling and certification schemes and the Parties, to identify opportunities for cooperation in such areas as mutual recognition, conformity assessment, and equivalency of standards. The first technical workshop will use renewable energy as an example and be coordinated with the North American Air Working Group. The second will be determined at a later date	40,000
Action 2	Support cooperation among public, institutional, and private procurement officials	65,000
Activity 1	Support the North American Green Procurement Initiative/Network, through a technical workshop with key groups	30,000
Activity 2	With key stakeholders, develop guidelines, capacity building opportunities, best practices, business-to-business communication links, and other tools to strengthen cooperation in green procurement	35,000
Action 3	Examine opportunities for cooperation in sustainable consumption	30,000
Activity 1	Create an exhaustive survey of sustainable production and consumption activities and projects in collaboration with the North American Alliance. Help support a web directory of these providers of environmentally-preferable goods and services and their criteria	30,000
Action 4	Examine environmental and market aspects of renewable energy and energy efficiency markets	90,000
Activity 1	Host a technical meeting of experts on approaches to estimating environmental benefits of renewable energy and energy efficiency, including methods to calculate displaced emissions	50,000
Activity 2	In cooperation with relevant groups and organizations, follow up on 2002 work on market-based approaches to carbon sequestration, renewable energy and energy efficiency, collecting additional information, including information on infrastructure needs, which can further our understanding of select market-based approaches	40,000
Action 5	Identify opportunities for increased trade in environmentally-preferable goods and services	120,000
Activity 1	Where appropriate, expand market analysis of green goods and services, targeted at market analysis of consumer interest in, and willingness to pay, for selected green goods and services	45,000
Activity 2	Identify changes/trends in trade in green goods and services in the NAFTA region	20,000
Activity 3	Identify potential impediments to trade of environmentally-preferable goods and services and, using scenario analysis, examine the environmental effects of increased trade through the elimination of such trade impediments	25,000
Activity 4	Host a meeting of key labeling and certification groups, procurement groups (including governments), sustainable consumption networks, and others, to identify opportunities for increased trade in green goods and services. This meeting should be held prior to the Cancun WTO Ministerial meeting of September 2003	30,000
Total Resources Required		400,000

Actions 2003–2004

2004

This area is of continuous, if not increasing, importance as trade and the scale of production increases and regulations become more and more expensive. Thus, initiatives related to market-based mechanisms and improving environmentally-preferable markets are expected to continue to be part of the program plan and to be expanded in 2004.

Public Participation

This initiative will help build effective trilateral public and private sector partnerships to employ market-based mechanisms fostering greener production and trade in North America. It is anticipated that JPAC will continue to play a key role in shaping the means of involving, and interacting with, the public during and after the period of public comment on options identified by key stakeholders.

Capacity Building

A key element of this project is to build the capacity of labeling and certification groups, consumer groups, governments, institutional, and industry procurement officials, trade officials, and other groups to expand trade in green goods and services.

Expected Partners and/or Participants

Expected partners include labeling and certification groups, procurement officials and supporting networks, communities and groups working on sustainable consumption, and different entities within the chain of green goods and services production, especially small and medium enterprises. Key partners will also include trade facilitation groups, for example, the WTO/UNCTAD International Trade Center, export promotion authorities, standard-setting bodies, trade officials, and others. In the energy sector, expected partners include providers, distributors, consumer groups, environmental and conservation groups, Conae, the North American Air Working Group, the North American Energy Working Group, international organizations concerned with renewable energy and energy efficiency, labeling and certification bodies, financial intermediaries, and other stakeholders involved in energy issues.

Linkages to other CEC Projects

This project builds on the Article 13 report and green goods and services and financing projects. It will continue to be conducted in collaboration with the Conservation of Biodiversity program area, including NABCI, and the Air Quality program area. The CEC has started adapting the methodology developed for green goods and services to collaborate with the Children's Health program's project on the removal of lead in artisanal pottery in Mexico. Other opportunities to apply the methodology will continue to be sought throughout the year.

1.2.2 Financing in Support of Environment Protection and Conservation

Project Summary

This project continues previous work exploring the interrelation between finance and environment, focusing on two areas emphasized by the CEC Council at its ninth regular session. These are (1) how environmental information affects financial markets, and (2) what are the investment opportunities in the environmental “sector.”

The role of the private financial services sector in supporting environmental goals is critical. The Johannesburg declaration on sustainable development emphasizes the need for private sector corporations to enforce corporate accountability in a transparent and stable regulatory environment. Implementation language includes: increased investment in cleaner production and eco-efficiency in all countries through incentives and support schemes and policies directed at establishing appropriate regulatory, financial, and legal frameworks. In partnership with the finance sector, UNEP, and others, this project will continue its work in identifying needs for information and financial analysis in supporting investments in green markets, in particular, those related to debt, equity, and venture capital finance. Second, the project will focus on ways environmental information—and, in particular, information related to environmental risk—is relevant to improving transparency and stability in financial markets. The project will examine how to advance work on existing requirements regarding disclosure of environmental information pertaining to financial reporting. The sectoral analysis will concentrate on the energy sector—including “upstream” activities of relevance to that sector.

The environment represents an important, dynamic, and growing business area for two reasons:

- (1) Environmental management is closely linked to business and financial risk management.
- (2) The environmental goods and services sector represents an important investment opportunity. To address the latter, the project will identify and broker partnerships in support of environment-related financing, such as the North American Sustainable Agriculture Fund.

Goals and Objectives

Building on a decade of work on finance and the environment by UNEP and OECD, among others, and the CEC’s previous work, the goal of this project is to secure private financing for environmental protection and biodiversity conservation in North America. This will be accomplished by harnessing the power of the financial service sector to support economic and trade activities that provide enhanced environmental protection and consideration. Experience shows that efforts to support green markets in “win-win” trade-environment links require not only the appropriate public policies, but also innovative partnerships with the private sector. The same is likely to be true for “win-win” investment-environment links.

The project will work in cooperation with the private sector and other institutions to encourage efforts to develop methodologies and information links. These are required to provide environmental information in a form more useful to financial institutions; to encourage the use of environmental information in credit, investment, and asset risk management decisions; and to consider how to advance work on existing requirements regarding disclosure of environmental information pertaining to financial reporting. The project will also encourage small and medium-size sustainable enterprises through the sustainable agriculture fund and other or similar instruments in other sectors. The goal is to expand access to financing and credit in these markets, including (where appropriate) access to micro-credit—both directly through project financing and indirectly through supporting market measures. The project will work with the financial services sector, UNEP, specific industry stakeholders, the Parties, and the NGO community to identify ways in which private-public partnerships can be deepened and strengthened.

The project will focus on the following objectives:

- Continue to examine what kind of information is needed to ensure the financial viability of investments related to green goods and services. In particular, examine the type of indicators and other information investors require to meet returns on investment and financial risk-related objectives.
- Extend lessons learned from the Sustainable Agriculture Fund to renewable energy and other sectors as appropriate.
- Facilitate partnerships between different actors within the financial services sector so as to provide targeted information on environmental opportunities in green markets.
- Develop methodologies to provide easier access to relevant and comparable environmental information in a format appropriate for financial analysis.
- Document the case for corporate social responsibility to encourage the use of environmental information in credit, investment, and asset risk management decisions.
- Consider how to advance work on existing requirements regarding disclosure of environmental information pertaining to financial reporting.

Expected Results

- In the long run, increase private financing in support of environmental protection and biodiversity conservation—directly, through increased financing in the environmental sector, and indirectly through improved market signals that incorporate companies' environmental risks.
- In the short run, this is achieved by improving the provision of information about the financing characteristics of green markets, documenting the business case for these investment opportunities, and clarifying the role of the public, NGOs, consumers, and market mechanisms in supporting investments in green markets.

Rationale

Increased private sector funding of environmentally-preferable investments is critical to advancing conservation and human and ecosystem health. The link between environmental protection and the financial services sector has been recognized for some time and covers two broad issues: the extent to which financial markets can internalize environmental costs and benefits in pricing signals in general; and the availability and conditions of private financing to support environmental goods, including the investment in green goods and services. In a perfect world, all the information provided to the Securities Exchange Commission in the US, the National Banking and Securities Commission in Mexico, and the provincial equivalents in Canada, would be sufficient to assess the potential environmental risks of a company, and the market would price financial resources accordingly. Given that available information fails to assess and report these risks, companies spend significant sums in due diligence and other fees to assess the environmental risk they may be exposed to in merging with, or acquiring, a company in addition to the cost of conducting

environmental impact assessment required by the law. Moreover, the financial market does not adequately reward companies that invest in the mitigation of potential environmental risk through lower interest rates, lower collateral, or better access.

Progress to Date

In 2001, the project undertook several initiatives in the field of financing and the environment. Examples include the release of the report on "Investment Opportunities for Small and Medium-size Enterprises in Mexico in the Climate Agenda." In 2002, the work continued. It was found that given current economic conditions, the private financial sector alone can not profitably support a North American Sustainable Agriculture Fund prototype with shade coffee (CEC 2002). A preliminary analysis that compared security exchange rules in Canada, Mexico, and the United States regarding the disclosure of environmental information was presented at a New York meeting in March 2002 on financing and the environment. Highlights of the meeting were that:

- (1) experience suggests that while obligations regarding the disclosure provisions covering environment-related risks are on the books, evidence of enforcement is uneven;
- (2) green and social investments remain niche segments of the market; there does not seem to be a bridge between mainstream banking and investment decisions, and environmental issues;
- (3) SEC filings are not considered a useful source of information about environment-related issues; and
- (4) the problem is not lack of environmental information—a large amount is transmitted through a multitude of reporting initiatives—rather, the problem is that information is not measured in a unit of analysis that is useful to the financial community, nor is it comparable among industries or even companies within the same industry.

Sector-level work (pulp and paper, oil and gas, electric utilities, and mining sectors) will be presented at a follow-up meeting in February 2003. The working level meeting with accounting firms, rating agencies, financial auditors, fund management companies, investment firms, securities exchanges and regulators, will distill where and how environmental risks are financially important, based on sector-level work. Best-practices in reporting will also be developed.

The 2002 Summit on Sustainable Development, with its emphasis on Phase Two partnerships, creates the best opportunity in a decade to engage the financing and investment community in environment-related investment. In collaboration with UNEP and the Carnegie Endowment, the CEC generated a background paper that provides a factual update of recent trends in the current status and immediate prospects for environment-related investment, including Foreign Direct Investment (FDI), as well as debt, equity and venture capital investments, to environment-related investments in developing countries, with the goal of stimulating discussions among the private sector and public agencies on the need for innovative partnerships for sustainable development.

Some of these results have been presented at a joint JPAC-Environment, Economy, and Trade program meeting on Investing in North America's Future: Innovative Financing for Sustainable Development, 9–10 December 2002, in Monterrey, Nuevo León, Mexico.

Based on the past three years' experience with the coffee project, it is clear that a lack of micro-credit is one of the major reasons for its small market share of shade-grown coffee. To attract private funds, the profitability and limited risk of shade coffee systems must be demonstrated. The project surveyed industry, farmers, and financiers to gather information, commitments, and partnerships required by lenders before they agree to participate in a sustainable agriculture fund, and prepared a prospectus containing estimates of the economic and financial returns from shade and organic coffee production systems. In the process, it became clear that other products grown with coffee represent a large share of total revenues, and thus the Fund was reoriented toward shade or sustainable agriculture (agroforest systems) more generally. Because the literature and experience thus far do not present clear-cut models easily applicable to cost-effective micro-credit delivery, work continues to design such a model that meets most of the credit demand and has a low default rate. Thus, the project observed and studied the entire production/consumption chain from the financier, through the

producers, its preparation, commercialization and export to consuming countries, to its final sale. This enabled the project to:

- determine where resource allocation, management, infrastructure, information flow, etc., could be improved;
- identify which actors are best suited to undertake each improvement: governments, NGOs, the coffee industry, financiers;
- recommend policies, economic instruments, institutions, and infrastructure development for each actor along the coffee production/consumption chain; and
- demonstrate that given current circumstances, it is not profitable for the private sector to invest in a coffee agroforest fund, that the fund would need to be supported by the non-private financial sectors, and that the Parties would need to show some commitment.

Public Participation

This project is designed to support increased partnerships with the private sector and to clarify links between financing and various market measures, including labeling, voluntary initiatives by industry, and other measures. An important emphasis of the project will be

Actions 2003 – Overview

This project will focus on two areas: lessons learned from other sectors in establishing the North American Sustainable Agricultural Fund and analysis at the sector-specific level on how environmental information disclosure is used and can affect capital markets.

2003		Estimated Resources Required (C\$)
Action 1	Continue to document how environmental information could better inform financial markets	120,000
<i>Activity 1</i>	<i>Expand information disclosure provisions among the three countries, at a sector level (pulp and paper, oil and gas, electric utilities, and mining sectors)</i>	50,000
<i>Activity 2</i>	<i>Convene a meeting of financial regulators, finance departments, industry representatives, and other institutions to explore how to provide environmental information in a form more useful to financial institutions</i>	40,000
<i>Activity 3</i>	<i>Develop methodologies and information links to encourage the use of environmental information in credit, investment, and asset risk management decisions. In particular, document environmental risks in ways that make business sense to CFOs and CEOs</i>	30,000
Action 2	Continue to explore ways to increase the financing of environmentally-preferable goods and services	75,000
<i>Activity 1</i>	<i>Leverage the expertise accumulated so far to develop partnerships with the coffee industry, the Parties, NGOs, and development banks to facilitate the creation of a pilot fund</i>	45,000
<i>Activity 2</i>	<i>Continue documenting private-public partnerships to increase financing of environmentally-preferable goods and services in general. To the extent possible, extend lessons learned to the renewable energy or other sectors</i>	30,000
Total Resources Required		195,000

2004–2005

This project is anticipated to continue to study and work on financial mechanisms, increasing its collaboration with the private sector, UNEP, and other groups, and focusing on issues central to other project areas in addition to Environment, Economy and Trade.

to encourage an ongoing exchange of information between environmental, producer, and consumer groups involved in green markets and the financial services sector.

Capacity Building

An important objective in encouraging mutually beneficial relationships between the financial services sector and community, environmental, and other groups that support an environmental agenda, is providing relevant information and support to these and other groups in the field on how to encourage partnerships that are truly “win-win.” Among the goals of the project will be a needs assessment to help community, environmental, and other groups build beneficial relationships. Lessons learned will be updated and distributed broadly.

Expected Partners and/or Participants

Along with the specific industry stakeholders, the CEC will continue to involve selected representatives of the private financial services sector, including commercial and investment banks, insurance, and re-insurance sectors, pensions and other funds, and representatives of relevant international and other organizations, including the World Bank, UNEP, the World Business Council for Sustainable Development (WBCSD), the OECD and various environmental and other groups. JPAC will continue to actively participate in these activities as well.

Linkages to other CEC Projects

This project will be closely linked to the Conservation of Biodiversity program area and will explore potential collaboration with the work in Children’s Health and the Environment. This project builds on the green goods and services project, which identified the need to work in the credit aspect of green market development.

North America hosts a wealth of spiritually cherished, economically important, and ecologically essential landscapes and seascapes. A great deal of North American biological diversity, however, is in peril. Although most problems affecting the North American environment are on the national level, certain others are shared by two of the three countries, and the effects and consequences of some have the potential to affect the entire continent.

Goals

In the context of increasing economic, trade and social links, the Conservation of Biodiversity program promotes cooperation among Canada, Mexico and the United States in furthering the conservation and sustainable use of North American biodiversity. With the direction and guidance from Council, the program will start implementing the “Strategic Plan for North American Cooperation in the Conservation of Biodiversity,” a long-term agenda to catalyze trinational conservation action at the North American level, by:

- promoting the conservation and maintenance of regions of continental ecological significance (Ecologically Significant Regions);
- promoting the conservation of North American migratory and transboundary species (Migratory and Transboundary Species);
- facilitating data and information sharing across North America and promoting integrated monitoring to increase understanding of the state of North American biodiversity (Assessment and Information Sharing);
- facilitating communication, networking, identification and sharing of best practices, priorities and opportunities for education and training (Capacity building and training);
- promoting collaborative responses to common threats facing North American ecosystems, habitats and species (Responding to Threats); and

- identifying and evaluating potential collaborative opportunities for biodiversity conservation and sustainable use that arise from the expansion of regional trade [Biodiversity Conservation and Trade (BT)].

Program Initiatives

The CEC establishes a forum for coordinated, continental solutions to key conservation challenges, as well as provides a more targeted geographical focus and interdisciplinary approach to conservation activities. The implementation of the program is described in further detail under the following work plan:

North American Biodiversity Conservation Strategies

- Strategic and Cooperative Action for the Conservation of Biodiversity in North America

Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

- North American Bird Conservation Initiative
- Terrestrial Species of Common Conservation Concern
- Marine Species of Common Conservation Concern
- North American Marine Protected Areas Network
- Closing the Pathways of Aquatic Invasive Species across North America

Improving Information on North American Biodiversity

- North American Biodiversity Information Network

2.1.1 Strategic and Cooperative Action for the Conservation of Biodiversity in North America

Project Summary

The Strategic Plan for North American Cooperation in the Conservation of Biodiversity (hereafter: the Strategic Plan) seeks to enhance collaboration among Canada, Mexico and the United States in furthering the conservation and sustainable use of North American biodiversity—in particular, its migratory and transboundary species, as well as shared and critical habitats and corridors. Effective participation and collaboration of a wide range of sectors of society is essential to address common threats and opportunities in the three countries.

The implementation of the Strategic Plan will be based on five-year action plans that identify “priority actions.” These priority actions will be incorporated into projects to be undertaken by CEC’s Conservation of Biodiversity program and will be oriented towards concrete results to be evaluated and measured against agreed upon indicators.

Goals and Objectives

The goal of this initiative is to develop, implement and monitor the effectiveness of a trinational cooperation strategy for the conservation of biodiversity at the North American level. Specific objectives include:

- identify areas of emerging interest or opportunities for biodiversity conservation, as well as program and implementation approaches, including innovative public/private partnerships;
- develop the first five-year action plan to implement the Strategic Plan; and
- develop a system and procedures to monitor and evaluate the impact and effectiveness of the Strategic Plan.

Expected Results

- A long-term cooperative agenda to guide CEC in its catalytic efforts to achieve effective, efficient, and mutually beneficial biodiversity conservation in North America.
- A permanent and systematic process by which the Biodiversity Conservation Working Group will be able to review, evaluate and provide guidance on the implementation of the Strategic Plan.
- Trinational networks to ensure stakeholder involvement and expert guidance in relevant aspects of program design and implementation.
- Initiatives to support capacity building and training in regions or themes of common interest.

Rationale

New initiatives are being implemented at national and local levels. However, it is becoming clearer that regional and continental action is not only a potentially effective approach but also an essential one, and the CEC is in a unique position to tackle this challenge.

The Strategic Plan aims to foster a continental, collaborative and integrated perspective to the management, conservation and sustainable use of biodiversity and equitable distribution of benefits; contribute to the maintenance of the ecological integrity of North American ecoregions; and contribute to the mitigation, reduction and eventual elimination of current and future threats to North American shared species and ecosystems.

Progress to Date

Previous CEC work in this area has produced *Ecological Regions of North America*, *Terrestrial Ecoregions of North America: A Conservation Assessment* and *Securing the Continent’s Biological Wealth: Towards Effective Biodiversity Conservation in North America—Integrated Baseline Summary*. In 2000, input and feedback were obtained through various fora and from numerous North American stakeholders, including the public, indigenous people, academics, government agencies, the private sector, and NGOs. Also, in a workshop of North American experts, fourteen priority regions were identified by their ecological significance, conservation threat, and opportunities. In 2001, the results gathered were reviewed and incorporated into the development of the CEC’s preliminary Strategy for the Conservation of Biodiversity, defining lines of action the CEC could take on various themes in the short, medium and long term. In 2002, a “North American Round Table on Biodiversity Conservation” was held to provide advice on North American priorities for the Strategic Plan. Through Resolution 01-03, the Council recognized the need to develop a long-term, comprehensive strategy to conserve and sustainably use biodiversity in North America. The Resolution established a working group to provide guidance and direction on the implementation of the Strategic Plan. This group convened for the first time in June 2002. Their first task was to finalize the Strategic Plan and to provide advice to the Council for its implementation.

Actions 2003–2004 – Overview

During the period 2003–2004, work will move from the North American scoping stage to continental- and regional-scale¹ planning, implementation and evaluation. Existing and past initiatives such as the North American Bird Conservation Initiative (NABCI), Species of Common Conservation Concern (SCCC), Marine Protected Areas Network, and other program-related work will be reviewed as tools for conservation in each of the targeted geographic regions. The monitoring and evaluation framework agreed upon by the working group will bring long-term guidance on the implementation of the Strategic Plan. In the summer of 2003, the implementation of the Strategic Plan will begin. The first five-year action plan will be developed and a monitoring system for the Strategic Plan will be established.

2003		Estimated Resources Required (C\$)
Action 1	Begin implementation of the Strategic Plan with the guidance of the Biodiversity Conservation Working Group	55,000
<i>Activity 1</i>	<i>Finalize the Strategic Plan for North American Cooperation in the Conservation of Biodiversity, and establish a monitoring and evaluation mechanism for it</i>	20,000
<i>Activity 2</i>	<i>Develop the first five-year action plan for the implementation of priority actions identified in the Strategic Plan</i>	15,000
<i>Activity 3</i>	<i>Edit, translate and publish the Strategic Plan</i>	20,000
Total Resources Required		55,000
2004		
Action 1	Second Round Table on Biodiversity Conservation	
<i>Activity 1</i>	<i>Hold the Second North American Round Table on the Conservation of Biodiversity on emerging approaches and best practices related to the Strategic Plan and in support of the work of the BCWG</i>	

Public Participation

Public participation has been and will continue to be an indispensable component of each phase of the implementation of the Strategic Plan. The development of the Strategic Plan benefited from the input of indigenous people. For the implementation of this North American agenda, emphasis will be given to their participation. Efforts will be continued in coordination with JPAC and the National Advisory Committees to solicit public feedback and the active participation of a broad range of stakeholders.

Capacity Building

The Strategic Plan for North American Cooperation in the Conservation of Biodiversity recognizes the different approaches and successful experiences in managing and conserving biodiversity among the three countries. To ensure the successful implementation of the Strategic Plan, outreach and capacity building activities involving biodiversity managers and the needs of stakeholders will be identified. Objective 4 of the Strategic Plan, “Promoting effective participation of North American society,” is aimed at fostering multidisciplinary,

trinitational networks and training opportunities, as well as promoting effective exchanges of information among key stakeholders.

Expected Partners and/or Participants

Partners and participants, including those from the academic community, environmental nongovernmental organizations, municipal, state/provincial and federal government agencies, indigenous/local communities, the private sector, and, in particular, the JPAC working group on the conservation of biodiversity and the Biodiversity Conservation Working Group, will be important contributors to the process of implementation, evaluation and review of the Strategic Plan. Stakeholders from these areas will also be involved in the development, implementation evaluation and review of the Regional Action Plans.

Linkages to other CEC Projects

This project will continue to be carried out in consultation with the other CEC programs to devise an integrated approach to biodiversity conservation for the CEC.

¹ CEC Priority Conservation Regions: 1. Arctic Tundra/Archipelago; 2. Arctic Coastal Tundra/North Slope; 3. Bering Sea to Baja California/Gulf of California Coastal/Marine Systems; 4. Yukon/Yellowstone/Sierra Madre Corridor; 5. Prairies/Chihuahuan Desert Corridor; 6. Northern Forests/Softwood Shield; 7. Great Lakes/St. Lawrence Lowlands; 8. Greater Gulf of Maine/Coastal/Marine System (Nova Scotia to New England), Gulf of St. Lawrence/Grand Banks; 9. Chesapeake Bay; 10. Southern Appalachians; 11. Rio Bravo/Laguna Madre Corridor; 12. Transverse Neovolcanic Belt; 13. Maya Reef and Southern Florida Coastal/Marine Systems; and 14. “Selva Maya,” Tropical Dry and Humid Forests.

2.2.1 North American Bird Conservation Initiative

Project Summary

Launched by the CEC in 1999, NABCI is now part of the agenda of the North American bird conservation community. NABCI has successfully completed the initial phase of establishing the institutional basis for undertaking the conservation of all birds in all habitats in North America. Since 2002, NABCI initiated its on-the-ground phase to serve as a vehicle for integrated bird conservation. In 2003, the CEC will continue its facilitating role in building partnerships for on-the-ground implementation, including the enhancement of local capacity to participate in continental-wide conservation efforts. Moreover, further support will be provided to establish a harmonized biological knowledge base necessary for integrated bird conservation.

Goals and Objectives

The overall goal of NABCI is to enhance cooperation among existing bird conservation organizations and initiatives to achieve effective protection of all birds in North America.

The main goal for 2003 is to initiate the application of NABCI as a vehicle for enhanced environmental planning and understanding, and for building local and continental partnerships.

The specific objectives for 2003 are as follows:

- Foster the implementation of on-the-ground activities to conserve bird populations in North America, by supporting projects with high potential to demonstrate the NABCI approach.
- Create opportunities to build/strengthen local capacity for effective participation in continental bird conservation efforts, by addressing principal training needs identified in regional workshops held in 2002.
- Support the establishment of harmonized systems to assess and monitor the conservation status of birds throughout North America, by assisting in the completion of an assessment framework compatible, consistent and complementary within and among the three North American countries.
- Highlight the usefulness of NABCI as a vehicle for integration and biodiversity conservation by seeking areas of cooperation with ongoing CEC programs by scoping potential areas of collaborative attention, such as on pesticides and birds, with SMOC.

Expected Results

- Establish partnerships and fund NABCI projects related to the bird conservation “hubs”—important bird areas that host a significant variety of migratory species and that have been chosen for their high potential in forging North American partnerships (see Progress to Date, below).
- Establish capacity-building programs to enhance success of NABCI’s on-the-ground projects.
- Improve the knowledge base through a harmonized bird assessment program based upon maps and shared criteria and databases for all bird species in North America.
- Achieve increasingly self-reliant NABCI institutional structures.

Rationale

Efforts for the protection of birds and their habitats are being carried out in each country of North America, but significant gaps still exist, and many bird populations continue to decline. Customarily, conservation projects and cooperative mechanisms—including Partners in Flight, the Waterbirds Conservation for the Americas, Joint Ventures, and Western Hemisphere Shorebird Reserve Network—have targeted the habitat and other needs of specific groups of species, such as waterfowl, shorebirds, colonial waterbirds, migratory and resident land birds, and various endemic and endangered species. None of these programs, however, has on its own the financial or human resources necessary to implement needs identified in planning activities and achieve full suites of conservation goals.

In response to the need to achieve greater coordination, NABCI’s strategy and action was developed in 1997, to assure the combined effectiveness of existing programs and achieve economies of scale.

NABCI is a vehicle to conserve all birds in all habitats. As an approach, this initiative is about protecting, restoring and enhancing populations and habitats of North America’s birds through coordinated efforts at international, national, regional and local levels, guided by sound science and effective management. This is being accomplished through regionally-based, biologically-driven, habitat-oriented, governmental and nongovernmental partnerships, delivering the full spectrum of bird conservation across North America.

Launched in 1999 by the CEC, this initiative has become a unifying element for conservation planning, prioritization and implementation in all three countries. In addition to NABCI's strategy and action plan, institutional mechanisms are currently in place to ensure long-term support for this initiative: a trinational committee and national committees have been formally established and national strategies have been developed in each country. NABCI is now a reality—one which is already significantly influencing the way key institutions establish their funding priorities for national and trinational projects.

Potential benefits for establishing linkages between NABCI and other program areas in 2003, and beyond, are significant. Due to their visibility, ubiquitous distribution and responsiveness, birds can serve both as a flagship for the conservation of all biodiversity and also, due to the wealth of information for them as a group, as a unique indicator of the health of the continent's ecosystems. The latter attribute has recently been demonstrated in a landmark study addressing the environmental impacts of acid rain (published for the first time for North America; *Proceedings of the National Academy of Sciences* (PNAS), 20 August 2002: 11235–11240). Hence, in the context of the CEC, NABCI has supported program integration. For instance, within the biodiversity program, links have been established with the terrestrial and marine species of common conservation concern; with the Pollution and Health program, in 2003 links will be explored between pesticides and human health; and between NABCI and CEC's Environment, Economy and Trade program, looking into sustainable coffee as a financial mechanism for biodiversity conservation.

Progress to Date

Since 1999 the CEC has partially supported the operation of NABCI national committees to help create the institutional framework necessary to achieve progress of this initiative. In response to the request made by the CEC Council in 2001, a 1999–2002 review of NABCI was undertaken and presented in the 2002 Council Session. Based upon the progress made, Council reiterated CEC's continuous support to this activity. The report is currently available through CEC's web site: <www.cec.org/files/PDF/BIODIVERSITY/nabci_Report-final-englishmaps.pdf>.

As NABCI becomes part of bird conservation institutional frameworks, currently true especially in Canada and the United States, starting in 2002, the CEC has been *gradually* shifting its resource allocation from operation to knowledge-base enhancement and on-the-ground project delivery.

With regard to project implementation, following the recommendations from the second trinational NABCI meeting, held in 2001, in 2002 a joint effort to identify hub areas for implementing NABCI projects took place. Led by the analysis of a broad group of Mexican partners, based on the highest priority Important Bird Areas and the characteristics desired in all three countries in such projects, six hubs were identified: Marismas Nacionales (Nayarit-Sinaloa), Chamela-Cuixmala

(Jalisco), El Triunfo (Chiapas), northeastern Yucatán peninsula (Ria Lagartos in Yucatán and Cozumel, and Sian Ka'an in Quintana Roo), El Cielo (Tamaulipas), and the grasslands of the Chihuahuan Desert. Throughout 2002, workshops have been held, bringing together local players from these areas and trinational partners to develop, among other things, a prospectus of potential trinational cooperation projects. Though the projects were based initially on shared migratory birds, NABCI national coordinators, supported by national and trinational committees and the CEC, are working with partners such as Joint Ventures and others in Canada, Mexico and the US to provide opportunities to form multiple links with the aforementioned hubs.

Concomitantly, current work supported by the CEC provides the basis for long-term monitoring projects critical for addressing the effects of widespread human-caused environmental changes like climate change, habitat fragmentation and acid rain. In 2002, CEC workshops contributed to the establishment of a compatible, comparable, consistent framework to assess, for the first time, the conservation status of species and populations of birds throughout North America. In 2003, regional workshops will be continued in Mexico to complete this year's framework for data sharing and establishing common priorities. Canada and the United States already have mechanisms for assessing the status of bird populations and Mexico's incorporation will allow a more complete understanding of the status of all birds in North America. This effort will be complemented by maps showing the distribution of Mexican birds, that are currently being completed with the partial support of the CEC.

In order to promote public participation, the CEC organized two international conferences: NABCI-I and II, held in Puebla and Querétaro, Mexico, respectively, in 1998 and 2001. In each case, over 100 participants, representing NGOs, academia, private individuals and the governments from the three countries, met to develop the concept of NABCI. The number of organizations embracing the NABCI approach is growing rapidly, as was evident in the recent Third International Partners in Flight Conference: *A Workshop on Bird Conservation Implementation and Integration*, Monterey, California, 20–24 March 2002. Over 620 participants from Canada, Mexico, the United States and Latin America attended to work on effective approaches to conservation of all birds and to forge international partnerships for future action.

Finally, as a means of strengthening the trinational institutional capacity and extending NABCI to other countries, during 2002 the national committees, in close collaboration with the Canada/Mexico/United States Trilateral Committee for Wildlife and Ecosystem Conservation and Management, and partially supported by the CEC, drafted the Memorandum of Understanding for the Conservation of North American Birds and their Habitats. This non-binding agreement is to be presented for ministerial signature in 2002 or early 2003, initially involving the three North American countries.

Actions 2003 – Overview

During the period 2003–2004, work will move from the North American scoping stage to continental- and regional-scale planning, implementation and evaluation. Existing and past initiatives such as the North American Bird Conservation Initiative (NABCI), Species of Common Conservation Concern (SCCC), Marine Protected Areas Network, and other program-related work will be reviewed as tools for conservation in each of the targeted geographic regions. The monitoring and evaluation framework agreed upon by the working group will bring long-term guidance on the implementation of the Strategic Plan. In the summer of 2003, the implementation of the Strategic Plan will begin. The first five-year action plan will be developed and a monitoring system for the Strategic Plan will be established.

2003		<i>Estimated Resources Required (C\$)</i>
Action 1	Support the operation of NABCI national committees	80,000
<i>Activity 1</i>	<i>Support national steering committees to implement trinational cooperation projects (per diems of the NABCI National Coordinators)</i>	<i>10,000</i>
<i>Activity 2</i>	<i>Continue phasing out CEC support provided to the operation of NABCI by providing partial support to Mexico's national coordinator</i>	<i>60,000</i>
<i>Activity 3</i>	<i>Initiate marketing of NABCI to increase its resource base by directly engaging major corporations, multilateral organizations, international wildlife organizations, etc.</i>	<i>10,000</i>
Action 2	Implementation of NABCI projects and integration with CEC programs	60,000
<i>Activity 1</i>	<i>Provide seed support for implementation of cooperation demonstration projects related to NABCI hubs, depending upon the results of the NABCI demonstration projects supported in 2002, as well as upon the regional NABCI workshops at the six hubs. Where possible, key cooperative themes of continental significance currently addressed by the CEC will be identified to enhance cooperation opportunities among CEC programs</i>	<i>60,000</i>
Action 3	Training to bolster local capacity for undertaking continental bird conservation efforts	40,000
<i>Activity 1</i>	<i>Promote capacity building and training efforts, guided by NABCI national action plans and informed by the discussions resulting from the workshops that took place in the six hubs during the second part of 2002</i>	<i>40,000</i>
Action 4	Evaluation: establishing a common bird baseline on the conservation status of birds in North America	20,000
<i>Activity 1</i>	<i>Complete North America's first trinational bird assessment by integrating Mexico's information, initiated in 2002 with CEC support</i>	<i>15,000</i>
<i>Activity 2</i>	<i>Contribute to the scoping workshop on the links between pesticides and birds at a trinational scale, an initiative led by CEC's Sound Management of Chemicals (SMOC)</i>	<i>5,000</i>
Total Resources Required		200,000

Actions 2003–2004 – Overview

The actions outlined below are designed to 1) secure the key involvement of the NABCI national committees and spurring self-reliance of this operational structure; 2) increase the rate of trinational, on-the-ground delivery of integrated bird conservation projects in the short term; and 3) strengthen the opportunities for sharing information aimed at assessing the status of birds through continuous monitoring and, eventually, a reporting system. In 2004, the CEC will assess the evolution of NABCI as a self-sustaining initiative and will benefit from the guidance provided by the Biodiversity Conservation Working Group. Priority areas for continued CEC involvement after 2003 are:

- 1) strengthen NABCI structure;
- 2) continue support to NABCI demonstration projects, and
- 3) establish a mechanism to monitor and report on bird conservation in North America.

2004–2005

The envisioned priority areas are:

- 1) strengthen NABCI structure,
- 2) continue support to NABCI demonstration projects and establish programmatic links to ongoing CEC programs; and
- 3) help consolidate a North American bird monitoring and reporting system that has the potential to contribute to the CEC's SOE process.

In 2004, the CEC will assess the evolution of NABCI as a self-sustaining initiative and will benefit from the guidance provided by the Biodiversity Conservation Working Group.

Public Participation

In 2003, full use of the renewed NABCI web site <www.nabci.org> will be made, to reach a wider public and muster targeted support for ongoing NABCI activities.

Capacity Building

Guided by NABCI national action plans and informed by the discussions resulting from the workshops that took place in the six hubs, in 2003 partnerships will be sought to ensure the exchange of information and knowledge for developing effective North American joint projects.

Expected Partners and/or Participants

Based upon the results of the workshops developed in 2002–2003, and building upon existing governmental and nongovernmental partnerships, new organizations will be enticed to participate in this initiative.

Currently, Cornell University, Conabio and UNAM are key partners in assessing the status of birds throughout North America. Furthermore, this activity is currently a candidate for receiving funding under the US Fish and Wildlife Service's *Neotropical Migratory Bird Conservation Act*.

Linkages to other CEC Projects

In the implementation of demonstration projects associated with the six hubs, special consideration will be given to exploring the potential for integrating NABCI with other CEC activities. Some of these include shade coffee (Environment, Economy and Trade program area), grasslands and marine initiatives (Conservation of Biodiversity program area), trade of wildlife (Law and Policy program area), NABIN, pesticides and birds (Pollutants and Health program area), etc. The results of the efforts related to the assessment and monitoring of the status of birds are envisioned as a key contribution to CEC's mandatory state of the environment report.

2.2.2 Terrestrial Species of Common Conservation Concern

Project Summary

This project is intended to promote the conservation of a selected² group of 17 migratory and transboundary species of birds and mammals (the species of common conservation concern—SCCC) and their habitats. Given that the majority of SCCC are associated with grasslands, an ecosystem approach has been followed, resulting in a conservation strategy (preliminary conservation framework) developed in 2002. The finalized strategy provides the context and guidance for enhanced multi-stakeholder cooperation throughout North America's central grasslands. In 2003, action plans will be developed and initiated to facilitate cooperative efforts in the conservation of grassland SCCC.

Goals and Objectives

The goal of this project is to enhance multi-stakeholder cooperation to support the conservation of migratory and transboundary species and their habitats.

The specific objectives are as follows:

- Facilitate trinational collaborative efforts to conserve priority grassland species, building upon the grasslands preliminary conservation framework.
- Foster public awareness of the ecological importance of grasslands and the decline of grassland-dependent species of common conservation concern.
- Promote multisectoral cooperation for the conservation of migratory and transboundary species.

Expected Results

- Joint conservation action plans for grassland SCCC.
- A published strategy for the conservation of grasslands and their SCCC.
- Pilot projects directed to key grassland SCCC.
- Provide policy oriented recommendations related to the conservation of grassland SCCC and their habitat.

Rationale

Habitat destruction is considered the main cause for the decline of biodiversity. Hence, effective and lasting actions for conserving species depend on addressing the causes inducing habitat loss. By developing an ecosystem approach to species conservation, institutions and organizations will be better endowed to coordinate regional multistakeholder efforts and improve resource allocation.

Moreover, the grasslands offer a unique opportunity as a theatre for cooperation on terrestrial species: they constitute not only the sole contiguous terrestrial ecosystem shared by the three countries but are also considered among the most imperiled ecosystems worldwide. This situation also applies for North America, where the decline in grassland area (e.g., tall-grass prairie) since 1830 has exceeded declines reported for any other major ecosystem. As a result of habitat loss and fragmentation, endemic grassland bird species show more consistent, widespread and steeper declines than any other group of North American bird species. The case for concentrating cooperation efforts in the grasslands is further supported by recent studies which single out this North American ecosystem, both in a worldwide comparison of the loss of species and for its potentially high species turn-over (sum of colonizations and extinctions) under climate change (see *Nature*, 11 April 2002: 626–629, *Science*, 3 May 2002: 904–907, respectively).

The ecosystem approach for the conservation of the SCCC, reflected in the conservation framework facilitated by the CEC, is meant to provide the context to prompt the integration and enhancement of individual initiatives aimed at the conservation of biodiversity, especially from the species to the ecosystem level. It is expected that this framework will help to coordinate and complement the efforts of national and international groups working on grasslands and strengthen the involvement of other resource groups besides wildlife, e.g., soils, agriculture, water groups. Furthermore, the coordinated integration of single-species conservation programs with protected areas and adjacent areas could be assisted by applying the ecosystem management principles adopted in the Fifth Conference of the Parties to the Convention on Biodiversity (Nairobi, May 2000). This approach is aimed at the integrated management of lands, water and living resources for their conservation and sustainable use.³

² Species were selected by the wildlife services of the three NAFTA countries using several criteria; among others, candidate species had to be transboundary or migratory, endangered or threatened in one or more countries. The complete set of criteria can be obtained at <http://www.cec.org/files/PDF/BIODIVERSITY/SCCC-Web-e_EN.pdf>.

³ See <<http://www.biodiv.org/decisions/default.asp?lg=0&dec=V/6>>.

Progress to Date

In 2000, through a report supported by the Canada/Mexico/United States Trilateral Committee for Wildlife and Ecosystem Conservation and Management, the three wildlife services of North America, assisted by the CEC, agreed to work together to protect 17 species of wild birds and mammals considered “species of common conservation concern” (SCCC). Given that the majority of these species are associated with grasslands, the CEC is currently facilitating the process to secure the well-being of grassland SCCC through a strategy that takes into account the main issues and conservation needs at an ecosystem level. The CEC report describing these species is available at the CEC web site <http://www.cec.org/files/PDF/BIODIVERSITY/SCCC-Web-e_EN.pdf>.

In 2001 the CEC organized a workshop in Nuevo Casas Grandes, Chihuahua, Mexico, to develop the basis for a trilateral strategy for the conservation of grassland species of common conservation concern. The workshop involved government representatives from Canada, Mexico and the United States, as well as representatives from NGOs, academia and landowners. Following the recommendations of the workshop, three main activities were developed in 2001 and completed in 2002:

- 1) an assessment of collaboration opportunities with Mexico, based upon grassland conservation priorities at a national scale;

- 2) an updated map of grasslands, including an integrated data base of conservation planning units; and
- 3) a continental assessment of issues and needs related to the central grasslands of North America, which became the basis for developing the grassland strategy (see <http://www.cec.org/files/PDF/BIODIVERSITY/Chihuahua_Meeting_Final_report-Reporte_final.PDF>).

In the same year, the CEC presented the results of the workshop to the Canada/Mexico/United States Trilateral Committee for Wildlife and Ecosystem Conservation and Management, and supported the development of a strategy for achieving the vision established by the Chihuahuan grasslands workshop.

With regard to public participation, in addition to the aforementioned trilateral and national workshops held with the participation of multiple stakeholders, expert participation of a variety of backgrounds was sought through more than 240 questionnaires sent out in the three countries inquiring about main issues and conservation needs related to grassland species. Moreover, in September 2002, as part of the Wildlife Society’s annual meeting, the CEC co-hosted a symposium with The Nature Conservancy, the University of Manitoba, the US Fish and Wildlife Service, Pronatura and the National Wildlife Federation to raise awareness about North America’s grasslands and create opportunities for cooperation. More than 1,500 participants from the three North American countries attended.

Actions 2003–2004 – Overview

The actions for 2003 build upon the trinational strategy for grasslands conservation and are aimed at facilitating cooperation for the conservation of the species of common conservation concern.

In 2004, the CEC will assess its involvement in the Grassland-SCCC project, based on progress made since 2003. The Biodiversity Conservation Working Group will offer ongoing guidance to this work.

2003		<i>Estimated Resources Required (C\$)</i>
Action 1	Facilitate the implementation of joint grassland conservation pilot projects associated with the species of common conservation concern (SCCC)	50,000
<i>Activity 1</i>	<i>Support key action plans and projects related to the conservation of grassland SCCC, that demonstrate the value of the ecosystem management approach for species conservation</i>	<i>50,000</i>
Action 2	Sharing a common platform	30,000
<i>Activity 1</i>	<i>Edit, translate and publish CEC's framework for the conservation for North American grassland SCCC, their habitat and ecosystems</i>	<i>30,000</i>
Total Resources Required		80,000

2004-2005

Activities developed in the 2004–2005 work program will take into consideration the advice provided by the Biodiversity Conservation Working Group

Action 1 Continue support to action plans developed in 2003

Action 2 Sharing a common direction

Activity 1 *Convey to the citizens of North America the importance, challenges, opportunities and results of trinational efforts to protect species of common conservation concern*

Activity 2 *Collaborate in the development of a standardized vegetation classification system for grasslands*

Public Participation

The framework for the conservation of grassland SCCC will be made publicly available through the CEC's web site <<http://www.cec.org>> and supporting articles in *Trio*.

Capacity Building

Guided by the grassland strategy and action plans developed for the SCCC, partnerships will be sought to ensure the exchange of information and knowledge for developing effective North American joint projects.

Expected Partners and/or Participants

The activities mentioned above can only be accomplished through partnerships among governments and non governmental organizations. Current partners include wildlife and parks agencies from the three countries, The Nature Conservancy, Canadian Plains Research Center, Rocky Mountain Bird Observatory, Pronatura, Profauna, the Universi-

ties of Chihuahua, Manitoba and UNAM, and Conabio. Moreover, given the interest of IUCN's Commissions on Ecosystem Management, Species Survival, and likely also the World Commission on Protected Areas, they could be brought in as co-sponsors of action plans and projects related to the conservation of grassland SCCC, that demonstrate the value of the ecosystem management approach. One of the key challenges for 2003 will be to involve indigenous peoples, as well as state/provincial/municipal governments, and farmers' and ranchers' associations.

Linkages to other CEC Projects

Depending upon the priorities highlighted for the grassland SCCC in the conservation strategy, linkages will be sought with ongoing CEC programs. Potential areas of collaboration include links with NABCI for the conservation of grassland birds and their habitats; with the Environment, Economy and Trade program area and NABIN for integrated analysis of information as well as ongoing mapping and database-related efforts.

2.2.3 Marine Species of Common Conservation Concern

Project Summary

This project facilitates collaboration among governments, NGOs, marine conservation scientists and others to identify, conserve, and monitor marine species of common conservation concern (MSCCC). An important focus of this project is to provide a foundation for informed decision-making and subsequent action at all levels and in all sectors that affect the conservation of species of common interest to the three countries.

Goals and Objectives

Through this initiative, governments, NGOs, marine conservation scientists, the private sector and others are working together to develop a long-term cooperative agenda to help conserve migratory and transboundary marine species at risk.

Specifically, to help conserve the selected MSCCC, the project will:

- develop a North American cooperative agenda and subsequent MSCCC action plans that include bi- and trinational cross-cutting initiatives and that recognize ecological, economic, social and cultural issues;
- foster improved decision-making, facilitate scientific information exchange, help influence policy and increase public awareness, as they relate to the conservation of MSCCC;
- build regional, national and international capacity to conserve MSCCC by sharing lessons learned, new technologies and management strategies, and by increasing access to relevant information; and
- monitor and assess the status of and threats to MSCCC.

Expected Results

Through the development of the North American Cooperative Agenda and Conservation Action Plans for MSCCC, the resulting cross-cutting initiatives, and a common monitoring and assessment program, the project will build collaborative efforts across political, sectoral, and agency borders to help conserve the species. Specifically, by 2004 the project will have:

- established trinational, cross-sectoral partnerships to help conserve the MSCCC;
- made significant progress towards developing and implementing a North American Cooperative Agenda for MSCCC by identifying priority species, developing status reports, and establishing action plans;
- improved information and built capacity to help conserve MSCCC; and

- worked towards the regional, long-term monitoring and assessment of the MSCCC (including, for example, the regional status of and major threats to MSCCC, monitoring the health, health trends, and stranding/mortality events of MSCCC, as well as correlating the health/status of MSCCC with available physical, chemical and biological data).

Rationale

Species are the common currency of biodiversity—its most identifiable elements. When we speak of loss of biodiversity, or even degradation of ecosystems, we are often referring to loss of a species or a reduction in species abundance. At the same time, individual species can galvanize conservation by putting a face to a conservation problem. Also, many MSCCC are also keystone, umbrella or indicator species; thus their conservation can help to protect other species and the assessment of their status can further our understanding of broader biodiversity problems.

Species that undertake migration at the continental scale or from one country to another, species that are transboundary, and species found in one country but affected by actions in another—all require regional approaches to management, conservation and recovery. Development of a North American Cooperative Agenda and subsequent Action Plans for migratory or transboundary species and other species of common conservation concern will help ensure that no link in the chain of needed conservation action is broken to imperil such continentally significant species.

The CEC is ideally suited to foster MSCCC conservation in North America because it brings governments, NGOs, conservation scientists, members of the private sector and other stakeholders from all three countries together to agree upon common frameworks and solutions that span the borders of North America—borders that migratory and transboundary species are oblivious to.

Progress to Date

MSCCC were identified through a process that included the development of country priorities and trinational agreements and criteria, as well as a trinational peer review. Subsequently, species' profiles were developed which covered the species' biology, range/important habitat, status, main threats, and species experts. Country Leads and Teams also developed fine-scale criteria that covered the probability of losing the species, the species' biology, its socio-economic importance, as well as its opportunity for conservation, to prioritize the need for concern for various species and, subsequently, their action plan development.

The project was originally catalyzed under the NA MPA Network in support of the Protection Standards section of the Action Plan Framework. Recognizing the need of a diverse set of conservation

tools aside from MPA-related initiatives, in the first meeting of the Biodiversity Conservation Working Group (29–30 July 2002), the initiative was proposed to be a stand-alone project in 2003.

Actions 2003 – Overview

In 2003, this project will focus on three areas:

- 1) developing a North American Cooperative Agenda and Action Plans for MSCCC,
- 2) improving information and building the capacity of decision makers, scientists and other stakeholders to address common challenges facing MSCCC, and
- 3) initiating the development of a common trilateral system for long-term monitoring and assessment of MSCCC, which could include monitoring the status of and major threats to MSCCC, monitoring the health, and health trends, stranding/mortality events affecting MSCCC, as well as correlating the health/status of MSCCC with available physical, chemical and biological data.

The monitoring initiative will build on regional initiatives, developing protocols for data sharing, to identify regional trends and priorities.

To help build capacity to address common challenges facing MSCCC, the CEC will develop a series of comprehensive review and background reports that address specific risks and challenges facing MSCCC in North America. The first report, to be developed in 2003, will focus on the impact to MSCCC from commercial and non-commercial fishing activities. As with all subsequent reports in the series, this first report will seek to share present-day knowledge among involved parties, as well as bridge disparate views held by various stakeholders. The report will cover the topic in light of collaborative, interdisciplinary partnerships, efforts, tools and mechanisms needed for integrated management of MSCCC within the North American marine and coastal environments. It will present a comprehensive review of existing literature, ongoing symposia, agreements, expertise in the subject, information needs and other challenges regarding fisheries issues, including recent mitigation efforts, management tools, and organizational structures that achieve both sustainable use and conservation of marine biodiversity. In addition to serving as a key reference document for conservationists dealing with MSCCC, the reports will also serve as background for the BCWG in its future proposals for CEC work.

As with all Biodiversity Conservation projects, the North American MPA Network is in a transition period awaiting finalization of the Strategic Plan for North American Cooperation in the Conservation of Biodiversity (hereafter: Strategic Plan). In light of this situation, the project is following the recommended actions found in the draft Strategic Plan, as well as the advice of the marine expert advisors.

2003		Estimated Resources Required (C\$)
Action 1	Developing a North American cooperative agenda	70,000
<i>Activity 1</i>	<i>Hold a trilateral meeting of species experts, natural resource managers, and other stakeholders to develop multidisciplinary teams that will build upon the species profiles developed to establish North American Cooperative Action Plans for the first set of MSCCC; disseminate results</i>	70,000
Action 2	Building capacity to address common challenges facing MSCCC	40,000
<i>Activity 1</i>	<i>Develop first in a series of comprehensive review and background reports on existing agreements, literature, ongoing symposia, and expertise on the risks and challenges facing MSCCC in North America. Reports will present a concise review of recent mitigation efforts, management tools, and organizational structures that achieve both sustainable use and conservation of marine biodiversity. Information needs and other challenges will also be outlined. In 2003, the focus will be on the specific impact to MSCCC from commercial and non-commercial fishing activities</i>	30,000
<i>Activity 2</i>	<i>Collect and enhance information about MSCCC for the North American Biodiversity Information Network (NABIN) marine pilot</i>	10,000
Action 3	Developing a regional MSCCC monitoring and assessment program	30,000
<i>Activity 1</i>	<i>Integrate MSCCC into and expand programs for monitoring of these species. Survey experts and identify both: a) the potential use of MSCCC in existing monitoring programs, as well as b) the needs for monitoring MSCCC</i>	30,000
Total Resources Required		140,000

2004–2005

Building on previous work, it is envisioned that the MSCCC work will continue in the following areas:

- 1) developing a North American Cooperative Agenda for MSCCC;
- 2) building capacity to address common challenges; and
- 3) developing a regional monitoring and assessment program. Actions for this time period will benefit from the guidance of the Strategic Plan and the Biodiversity Conservation Working Group

Public Participation

Meetings to establish a North American Cooperative Agenda and Action Plans will include experts from government, NGOs, academic and other members of the research community involved with the conservation of marine mammals, sea birds and sea turtles of common conservation concern, as well as representatives from fishing communities and indigenous communities.

Capacity Building

The establishment of trinational, cross-sectoral partnerships and subsequent development of a North American Cooperative Agenda and Action Plans will help stakeholders from the three countries learn from and build upon each others' experience and expertise. Development of the MSCCC profiles and their subsequent inclusion on the NABIN web site will also help to increase accessibility to, synthesis and exchange of information enhancing decision-makers, scientists and concerned stakeholders' capacity to conserve MSCCC. Moreover, the series of reports on common threats to MSCCC will help share experiences and knowledge on best technologies, practices and management tools, developing capabilities for stakeholders to sustainably use resources and conserve marine biodiversity.

Expected Partners and/or Participants

To successfully protect MSCCC, governmental agencies, nongovernmental organizations, consumers, industry and the research/academic community all have important roles to play. The trinational, multi-sectoral MSCCC expert advisors/country leads and country teams have and will continue to work together to help protect these and other migratory and transboundary species of common concern. Partnership will continue with the project team from the Canadian Wildlife Service (CWS), Department of Fisheries and Oceans Canada (DFO), National Oceanic and Atmospheric Administration (NOAA), the National Institute of Ecology of Mexico (*Instituto Nacional de Ecología—INE*), *Centro de Investigación Científica y de Educación Superior de Ensenada* (CICESE), and Point Reyes Bird Observatory (PRBO), and Sound Seas, without whose experience, insight and cooperation the project would not be possible. Linkages and partner-

ships will be extended to other agencies, groups and institutions in the development of the North American Cooperative Agenda, Action Plans and cross-cutting initiatives, including other organizations that deal with MPAs, such as the *Comisión Nacional de Áreas Naturales Protegidas* (Conanp), the US Fish and Wildlife Service, and Parks Canada. The OBIS (Ocean Biogeographic Information System) initiative led by Duke University is developing a digital archive of global marine mammal, seabird and turtle distribution data. The OBIS-Seamap (Spatial Ecological Analysis of Megavertebrate Populations) project will provide valuable data on the distribution and abundance of MSCCC.

Linkages to other CEC Projects

The MSCCC project of the CEC will continue to forge links with other areas of the CEC work program. Present linkages include those with the following programs/projects:

- NABCI: identifying common areas for collaborative action with sea birds;
- NABIN: increasing information integration and availability related to MSCCC, subsequently building capacity of decision makers, and helping educate civil society about MSCCC;
- NA MPA Network: using MSCCC to help define priorities for conservation and establish integrated ecosystem management, as well as to coordinate on appropriate actions for MSCCC;
- Environment, Economy and Trade: building on and learning from experience in Green Goods and Services, and working with EET to identify alternative means that support best practices, technologies and methodologies; and
- the JPAC Conservation of Biodiversity working group and NAFEC will also play pivotal roles by helping to reach out to other groups and institutions in the development of the Cooperative Agenda and Action Plans as well as in the implementation of cross-cutting initiatives.

2.2.4 North American Marine Protected Areas Network

Project Summary

The ecological linkages between Marine Protected Areas (MPAs), including migratory patterns and life history stages of various species, suggests the need for improved collaboration in the establishment and management of MPAs. Although there are many marine conservation efforts throughout North America, they generally work independently of each other. A system of MPA networks—both human and ecological—will provide better protection for marine biodiversity than can be achieved by managing MPAs in isolation. The North American Marine Protected Areas Network—coordinated by the Commission for Environmental Cooperation (CEC) of North America, in collaboration with the North American Marine Working Group of IUCN/World Commission on Protected Areas—aims to enhance and strengthen the conservation of marine biodiversity in critical marine habitats throughout North America by creating functional linkages and information exchanges among existing and planned marine protected areas.

Goals and Objectives

The goal of this project is to work with a trilateral, multi-sectoral group of stakeholders in establishing an effective system of North American MPA networks that enhances and strengthens the protection of marine biodiversity. Specifically, the project seeks to:

- enhance collaboration among the three countries to address common challenges inherent in the protection of marine biodiversity and jointly prioritize conservation actions;
- develop effective conservation approaches and cross-cutting conservation initiatives that help conserve critical marine and coastal habitats and North American biodiversity, and recognize ecological, economic, social and cultural issues;
- build regional, national and international capacity to manage, conserve, and monitor the status of critical marine and coastal habitats by sharing effective conservation approaches, lessons learned, new technologies and management strategies, as well as by increasing access to and synthesis of relevant information; and
- facilitate the strategic design and establishment of a global system of MPAs throughout North America and the world, as called for by IUCN.

Expected Results

Recognizing that all North American marine ecosystems, species, and coastal communities are inexorably linked, and that piecemeal efforts to protect the marine environment have been largely unsuccessful, the project will help strategically design networks spanning the critically important waters of Canada, Mexico and the US, fostering collaborative efforts among various stakeholders to tackle this challenge. The project will also help raise the profile of marine conservation issues in North America and foster and enhance the ability of stakeholders to effectively deal with North American marine conservation challenges. Specifically, by 2003–2004, the project will have:

- laid the foundation for the strategic development of a network of protected areas on the Pacific coast;
- explored possible tools for MPAs in light of integrated ecosystem management;
- increased policy attention to the conservation of our shared marine resources;
- built capacity of decision makers, scientists, managers and other stakeholders to conserve the marine environment by increasing accessibility to, synthesis and exchange of information vis-à-vis:
 - the status and trends of priority marine species, spaces, and ecosystem functioning, and
 - common issues and threats.
- enhanced trilateral, cross-sectoral partnerships to help conserve the North American marine environment.

It shall be noted that the CEC shall work in conjunction with existing national and international guidelines and agreements to ensure maximum enforceability of MPAs.

Rationale

Marine protected areas are effective tools for safeguarding and conserving critical coastal habitats throughout the varied regions of North America and are increasingly being valued for their role in helping to sustain fisheries, resolving user conflicts, strengthening local and regional economies, empowering local communities, valuing cultural resources, promoting recreation, and enhancing integrated and ecoregional management.

Many individual and often isolated MPA sites and programs already exist and could be greatly enhanced with additional exchange of information, strategies, and compilations of lessons learned. Moreover, no single MPA can be large enough to protect highly migratory species and ecologically important areas on a regional scale. By focusing management and conservation action, for example, at the most ecologically critical places, such as key local spawning areas, larval retention areas, nursery grounds, feeding areas, and migration bottlenecks, a network of properly managed and coordinated MPAs, however, can effectively and efficiently help to conserve biodiversity region-wide.

While individual MPA sites provide valuable local conservation for marine biodiversity, more effective regional conservation could be achieved if the various sites, and associated sectors, institutes, agencies and organizations in North America collaborated to forge more meaningful partnerships, working together on cross-cutting initiatives and developing, implementing, and monitoring a strategic, well-designed network of MPAs.

Progress to Date

Since 1999, over 250 people from various sectors, agencies, organizations and institutions have been working together to strategically design, effectively support, manage and monitor a North American Network of Marine Protected Areas that will help conserve critical marine and coastal areas and North American biodiversity. Catalyzed by a trinational workshop (November 1999, La Paz, Mexico) the Network produced an Action Plan Framework that sets out seven areas of recommended action for the Network:

- 1) Valuing Economic Benefits of MPAs,
- 2) Mapping Marine and Estuarine Ecosystems of North America,
- 3) Guidelines for Measuring MPA Effectiveness,
- 4) Integrated Management Planning,
- 5) Expanding Applied Research for MPAs,
- 6) Developing an Ocean Ethic, and
- 7) Protection Standards.

While some have a North America-wide focus, others are centered on the sub-region of the Pacific Coast of North America, also known as the Baja California-Gulf of California to Bering Sea (B2B) region.

Towards the strategic development of a network of MPAs in North America

To help lay the foundation for the strategic development of a network of MPAs, the CEC fostered the development of a series of interrelated and supporting initiatives. To develop a framework and common language for the network, the CEC worked with major players involved in marine and estuarine mapping to develop a Map of Marine and Estuarine Ecological Regions of North America (in support of Mapping Marine and Estuarine Ecosystems of North America, and Ocean Ethic). By the end of 2002, a three-level, hierarchically-nested GIS map, accompanied by physical and biological information for each region will have

been completed. Priority migratory and transboundary species at risk in North America—the MSCCC—were also identified, and status reports were developed for each of the species (a project developed in support of Protection Standards, and Ocean Ethic; see project 2.2.3 for more information). The MSCCC not only helped to prioritize collaborative marine conservation action among the countries for migratory and transboundary species, they, along with the ecoregion map, aided in laying the groundwork for prioritizing areas for conservation in the B2B region—one of the first steps in developing a network of protected areas. Following up on the activities of the previous year, in 2002, data were collected and the methodology for participation in and ownership of the project was enhanced. Also in 2002, a Conservation GIS Data Potluck (Portland, July 2002) was held and a workshop hosted to prioritize areas for conservation along the North American Pacific coast, using the information collected, as well as expert scientific, local and traditional knowledge, from a diverse range of stakeholders from the B2B area (in support of Integrated Management Planning, and Expanding Applied Research for MPAs). To build on the initiatives, a white paper was drafted to bring the pieces of the puzzle together for a system of MPA networks—both human and ecological—spanning the critically important coastal waters of Canada, Mexico and the US (in support of Integrated Management Planning and a general strategic vision for the project).

Towards better monitoring and a better understanding of our shared marine environment

At the same time, the CEC worked with its partners to identify targets and indicators for assessing MPA management effectiveness and develop a comprehensive, web-based information management system, or clearinghouse, that would compile site-level effectiveness results to illustrate important trends and valuable lessons learned about MPAs across broad geographic scales. The project is being led by NOAA and WCPA–North America/Marine, in close coordination with the NA MPA Network and CEC’s NABIN. The CEC also developed a web-based information tool—Marinet, at <<http://www.orchestrabycrossdraw.com/marinet>>—and enhanced its capabilities by developing the marine section of the NABIN portal prototype: a visual, collaborative web-based tool, with geographical information system (GIS) and database query capabilities. The marine section of the portal will use and link information from existing but isolated Canadian, Mexican and US organizations, agencies and institutions, allowing marine conservation decision-makers, scientists and experts to access various North American databases and maps. It will also facilitate communications and provide a vehicle for members of the North American MPA Network to inform each other about important marine conservation-related documents, events, and issues. In its first stage of development, the marine section of the portal prototype will cover basic information pertaining to the MSCCC, B2B priority areas, and Marine and Estuarine Mapping projects, as well as information contained within various MPA inventories (in support of Guidelines for Measuring MPA Effectiveness, Integrated Management Planning, Expanding Applied Research for MPAs and general communications).

Towards increased interaction and capacity among marine conservation stakeholders

The CEC also fostered greater collaboration, information exchange and networking among agencies, organizations and private institutions from various sectors working on and involved with marine biodiversity conservation and MPAs, which included projects relating to:

- strengthening institutional capacity of the Baja California to Bering Sea Marine Conservation Initiative (in support of Integrated Management Planning), which:
 - developed a common vision and mission and key components of a strategic plan;
 - established a B2B listserv;
 - identified priority issues facing MPAs in the region and how practitioners are approaching these opportunities and challenges;
 - through a project funded by NAFEC, developed a brochure that highlights four existing or future MPAs in the region: Glacier Bay, Gwaii Haanas, Channel Islands, and Magdalena Bay;
- exchanges of MPA practitioners from throughout North America, which covered topics such as: site planning; administration and general management; scientific and technical input; surveillance and enforcement; services, communication and outreach; monitoring and evaluation; in addition to a general overview of the participating MPAs (in support of Integrated Management Planning, Protection Standards, and Guidelines for Measuring MPA Effectiveness);
- bringing the private sector together with conservation-minded organizations to develop “win-win” scenarios in terms of sustainable tourism, focusing on whale watching in MPAs along the B2B coast (in support of Valuing Economic Benefits of MPAs and Developing an Ocean Ethic). In particular, by working with the Environment, Economy and Trade program of the CEC and the B2B Marine Conservation Initiative, the Network has helped to:

- develop a market study of North American sustainable tourism;
- organize a workshop on whale watching and MPAs in the B2B region to develop a market-based strategy for conservation of shared species and critical habitats in the B2B coastal region;
- foster and enhance a dialogue and partnership among regional leaders, focusing primarily on the development of a Sustainable Whale Watching Toolkit (which included best practice guidelines for sustainable whale watching in MPAs, and a Sustainable Whale Watching Fact Sheet, both for the B2B region).

The project has also catalyzed an independent regional initiative built on the project’s foundation. The project, led by the Oceans Blue Foundation/*La Fondation Océans Bleus* (Canada), seeks to deliver an international whale watching best practices charter with signatories from a critical mass of Canadian, Mexican and US whale watching operators committed to exceeding regulatory standards on marine mammal viewing.

Reviewing progress to date

The CEC also organized a meeting of its marine expert advisors (Montreal, July 2002) to review the NA MPA Network’s progress to date in addressing the pressures on North America’s coasts and oceans. The advisors supported continued involvement of the Secretariat in its ongoing projects and initiatives, and proposed that the CEC continue its work with the countries to develop a fully functioning and integrated NA MPA Network. The advisors also defined possible future priorities for marine conservation action in North America by identifying:

- 1) common threats to NA marine biodiversity, and
- 2) conservation actions to address these threats through bi- and trilateral cooperation.

The participants noted the following four areas, to date largely un-addressed by the CEC, as concerns to the North American marine and coastal environments, and suggested they be considered by the BCWG for future CEC involvement:

- 1) fisheries management and practices,
- 2) ocean and coastal development, transportation and planning,
- 3) human-induced global system changes, and
- 4) developing an ocean ethic.

Actions 2003 – Overview

As with all Conservation of Biodiversity projects, the North American MPA Network is in a transition period awaiting finalization of the Strategic Plan for North American Cooperation in the Conservation of Biodiversity. Taking this into account, the project is following up on commitments made, taking the NA MPA Network Framework and the draft Strategic Plan into consideration, as well as following advice of the Marine Expert Advisors, and in 2003, will work to help:

- a) increase capacity and interaction among MPA conservation stakeholders,
- b) develop a network of MPAs in North America, and
- c) improve the monitoring and understanding of our shared marine environment.

Through these actions, the project will also help share science-based information, models and theories to work towards developing a common approach to integrated management for MPAs in North America. They will also help build support for trilateral conservation priorities. It is expected that the work in 2004–2005 will be guided by the Strategic Plan, hence, no actions have been specified.

2003		Estimated Resources Required (C\$)
Action 1	Increasing capacity of and interaction among MPA conservation stakeholders	40,000
Activity 1	Share science-based information, models and theories to work towards developing a common approach to integrated management for MPAs in North America. Host a workshop (co-hosting/piggybacking on SAMPAA meeting on Making Ecosystem Based Management Work), prepare and disseminate support information that will explore subjects such as: a) clarifying the vision and reviewing the theory put forth in the white paper on integrated management (IM) for the NA MPA Network, b) identifying and developing task team members who will help “land” the IM vision and theory in two regions (one Pacific, one Atlantic), c) identifying capacity building, training and science priorities that will support the strategic vision and address common concerns for North American marine conservation, and d) identifying, developing and supporting task teams to partner on priorities put forth in the MSCCC project—securing the link between migratory/transboundary species and place-based conservation approaches, such as MPAs	40,000
Action 2	Strategic development of a network of MPAs in North America	120,000
Activity 1	Edit, translate, and publish results of the B2B priority areas work, covering such topics as the final methodology used, the importance of each of the areas, and potential tools for conservation in the region, setting the stage for integrated management of MPAs	50,000
Activity 2	Organize two regional workshops (one on each coast—Pacific and Atlantic) that explore the possibilities for piloting integrated management for the NA MPA Network. This activity will: i) work with the current legislative authorities in each country, ii) help fulfill regional scientific and management needs, and iii) build on previous trilateral efforts, such as ecoregional mapping, MSCCC, and priority areas in B2B The workshop will help identify how communities can explore and utilize the potential benefits of a North American network of MPAs to help address local concerns within the context of regional and continental efforts and priorities	70,000
Action 3	Better monitoring and understanding of our shared marine environment	45,000
Activity 1	Enhance NABIN marine pilot by adding additional databases and compiling MPA management effectiveness results, including information from the B2B priority areas work (e.g., maps and databases gathered, results of workshop), information on management effectiveness of MPAs, and information on ongoing national and international MPA inventory work	20,000
Activity 2	Support a North American pilot project for the WCPA-WWF management effectiveness project	25,000
Total Resources Required		205,000

2004

Building on previous years' work, it is envisioned that action of the NA MPA Network will be focused on the following areas:

- 1) increasing the capacity of and interaction among MPA conservation stakeholders;
- 2) strategic development of a network of MPAs in North America; and
- 3) better monitoring and understanding of our shared environment.

In this period, the emphasis of activities will change from scoping and planning to implementation. Actions for this time period will benefit from the guidance of the Strategic Plan and the Biodiversity Conservation Working Group.

Public Participation

Success of MPAs and associated networks depends to a large degree upon public awareness, support and participation in the planning and management of MPAs. From network design to local implementation at specific MPA sites, the public has been and will be increasingly involved in this endeavor. As well, the academic community, indigenous groups and NGOs involved in marine protected areas will be consulted for their input into establishing linkages, developing priorities and initiating integrated ecosystem management. As the process evolves, general outreach materials and tools, such as the B2B brochure and the marine section of the NABIN web site, will be developed for explaining to a broad audience the benefits that will accrue to marine biodiversity from this project's cross-cutting initiatives.

Capacity Building

The fundamental purpose of creating an integrated, interactive network of North American MPAs is to build global capacity, sharing information on lessons learned about effective conservation strategies, emerging threats to marine biodiversity, as well as funding or outreach opportunities. It is anticipated that all members of the network will benefit equally from this exchange. Training of MPA managers and building capacity of stakeholders and decision-makers through increased accessibility to information, and its synthesis and exchange, are considered to be at the core of the MPA network.

Expected Partners and/or Participants

The following agencies and organizations have played an important leadership role in building the North American MPA Network, and are expected to continue as partners and/or participants in the future: Canadian Council on Ecological Areas (CCEA), Canadian Parks and Wilderness Society (CPAWS), Canadian Wildlife Service (CWS), Department of Fisheries and Oceans—Canada (DFO), Marine Conservation Biology Institute (MCBI), Memorial University of Newfoundland, NatureServe, National Oceanic and Atmospheric Administration (NOAA), Parks Canada, Point Reyes Bird Observatory (PRBO), Ramsar, Scripps Institute of Oceanography, *Secretaría de Medio Ambiente y Recursos Naturales* (Semarnat)—in particular, *Comisión Nacional de Areas Naturales Protegidas* (Conanp), Conabio, INE, and *Subsecretaría de Gestión para la Protección Ambiental*—Sound Seas, UNEP-WCMC, United States Fish and Wildlife Service, University of Guelph, University of Moncton, Wildlife Habitat Canada, WCPA North America—Marine of IUCN and World Wildlife Fund. Although too numerous to mention here, other partners for this project have developed in part from the 1999 North American MPA Workshop, the 2000 and 2001 B2B Marine Conservation meetings, the 2001 Monterey workshops, the 2002 Marine and Estuarine Mapping meeting, the MPA practitioners' exchange, the Conservation GIS Data Potluck and B2B Priority Areas workshop, the B2B Sustainable Whale Watching initiative, as well as other outreach efforts.

Linkages to other CEC Projects

This project has greatly benefited from close links with the Mapping Marine and Estuarine Ecosystems of North America project, the Environment, Economy, and Trade (EET) program area, and the North American Biodiversity Information Network web site. Links with the EET program, the NABIN web site, JPAC Conservation of Biodiversity working group and NAFEC will continue in 2003–2004, and be complemented by links with the MSCCC and NABCI projects.

2.2.5 Closing the Pathways of Aquatic Invasive Species across North America

Project Summary

This project seeks to protect North America's marine and aquatic ecosystems from the effects of aquatic invasive species. The initiative will assist the development of a North American approach to prevention and control aimed at eliminating pathways for the introduction of invasive species among the coastal and fresh waters of Canada, Mexico and the United States.

Goals and Objectives

The goal of this project is to establish a common perspective on prevention and control of aquatic invasive species in North America, targeting trade-related pathways, and consequently steward the implementation of priorities for trilateral and multi-sectoral collaboration. Specific objectives include:

- identify aquatic invasive species and pathways of invasion that concern two or more countries and steward cooperative plans of action to address those priority species and pathways;
- develop a North American Aquatic Invasive Species' Information Network;
- create a regional directory of legal and institutional frameworks relevant to the prevention and control of aquatic invasive species;
- develop and distribute tools for raising awareness on the issue of invasives and empower policy makers; and
- identify tools to provide economic incentives to industries and other private stakeholders that voluntarily take actions to prevent the introduction and minimize the spread of aquatic invasive species.

Expected Results

- Increased collaboration between database holders on aquatic invasive species
- Common standards and protocols on information sharing and monitoring of aquatic invasive species of common concern (AISCC)
- Distributed database of identified AISCC within the Mexican Information System on Aquatic Invasive Species
- Detailed assessment of high-priority pathways⁴ for invasions in North America

- First collaborative action plan to prevent introduction of aquatic invasive species, based on identified priorities
- A common North American perspective to risk assessment for intentional and accidental introduction of aquatic invasive species

Rationale

The impacts of invasive species can be severe, devastating healthy ecosystems and undermining the local economies they support. Once established, invasive species can displace important native species, drive rare species to extinction, decimate the biodiversity and trophic structure of coastal ecosystems, compromise the ecological integrity of marine protected areas, destroy commercial and recreational fisheries, and impede traditional cultural uses of coastal resources. The societal costs of biological invasions can be staggering.

The recent increase in trade and migration within North America, and other human activities such as potential water engineering/diversion projects raises the risk of expanded transboundary introductions of alien species among the neighboring NAFTA countries of Canada, Mexico and the United States. Consequently, this project is specifically designed to focus on transboundary pathways within North America. A single localized invasion in one country actually represents a significant international threat across North America, as do pathways that routinely move alien species from one country to another. Invasive species require comprehensive and sustained international collaborations. A trilateral approach to the prevention and control of invasive species could enable all three countries to make the issue a significant priority, develop mutually supportive legal and policy frameworks, share information and technical capacity, and use limited resources more efficiently.

The most cost-effective approach to combating invasive species is to keep them from becoming established. Diverse tools, methods, and bi- and trilateral arrangements are needed to prevent invasive species from becoming established in North America. As an intergovernmental organization, the CEC is ideally positioned to foster a trilateral, risk-based approach—one that considers the likelihood of establishing new invasive species, their potential spread, as well as the degree of harm they could cause. The CEC's work on invasive species will be complementary to, and build upon, work underway in all three Parties, as well as through other international organizations.

⁴“Pathways” are the means and routes by which invasive species are introduced. From the actual and potential pathways identified during 2002, a subset of high-priority pathways will be chosen, based on the level of continental threat, opportunities for cooperation and the potential for ecological and economic impact.

Progress to Date

On 28–30 March 2001, in Montreal, Quebec, the CEC convened the first North American workshop to identify cooperative opportunities for preventing the introduction and spread of aquatic invasive species in North America. This workshop primarily addressed trade-related pathways such as ballast water, aquaculture, the pet industry and live bait.

The proceedings and recommendations for continental collaboration have been electronically published at <http://www.cec.org/programs_projects/conserv_biodiv/project/index.cfm?projectID=20&varlan=english>.

Work is underway (2002) to identify aquatic invasive species and pathways of common continental concern as follow-through on recommendations identified at the Montreal meeting. Following a similar methodology used to identify the Marine Species of Common Conservation Concern, criteria will be chosen to identify these aquatic species and pathways. Once these are identified, a report will be developed describing the threat and invasiveness of each species, major pathways of introduction as well as priorities for collaborative efforts. This document will subsequently be brought together with both the terrestrial and marine species of common conservation concern reports.

Actions 2003–2004 – Overview

During 2003–2004, the CEC will assess high priority pathways, including sites of origin, destinations and means of transportation for AISCC. The results of this assessment will facilitate the development of collaborative action plans for the prevention and control of AISCC. In support of the implementation of the action plan, emphasis will be given to information exchange, analysis, networking and capacity building.

2003		<i>Estimated Resources Required (C\$)</i>
Action 1	Strengthen the state of knowledge on pathways and species of common continental concern and develop the regional capacity to share and analyze information on species and pathways	90,000
<i>Activity 1</i>	<i>Strengthen existing North American efforts on bio-informatics and information exchange, focusing on monitoring of aquatic invasive species of common concern</i> <i>- Through a meeting with major database holders, foster agreements and support the development of compatible information standards and protocols for AISCC</i> <i>- Continue to support the Mexican Information System on Aquatic Invasive Species through the development of a distributed database on the identified AISCC</i>	<i>40,000</i>
<i>Activity 2</i>	<i>Assessment of a high-priority pathway,⁴ including origin, destinations and means of transportation</i> <i>- Assessment of ecological conditions and biology of those AISCC associated with the pathway</i> <i>- Assessment of means of dispersal, actual frequency and volume, as well as current trends</i> <i>- Identification of actual and potential destinations of invasions; assessment of response capabilities (readiness) and vulnerability; development of needs analysis</i>	<i>50,000</i>
Total Resources Required		90,000

2004	
Action 1	Facilitate the development of bi- or trilateral action plans to prevent further introduction of aquatic invasive species of common concern (AISCC)
<i>Activity 1</i>	<i>Foster the development and implementation of the first collaborative action (species, pathway or theme to be determined by ad hoc task group) plan based on the identified aquatic invasive species and pathways of common concern</i> <i>- Assessment of existing legal tools appropriate to the nature of the action plan</i> <i>- Establishment of ad hoc task group to develop a joint action plan</i> <i>- Identify priorities for capacity building</i>
<i>Activity 2</i>	<i>Edit, translate and publish the assessment of the priority pathway selected</i>
Action 2	Develop a common North American approach to risk assessment for intentional and accidental introduction of aquatic invasive species

Public Participation

The public has and will have opportunities to participate in all aspects of the Aquatic Invasive Species project, from planning and attending the workshop, to implementation (via community-based conservation efforts), to dissemination of the results (via web-based tools).

Capacity Building

During this year, the CEC will identify capacity-building needs related to specific pathways and destinations that are of common North American concern. Some of the resulting recommendations from this analysis will serve to guide future cooperative actions. The CEC will continue its work to raise the capacity of its country members to gather, systematize and analyze information on aquatic invasive species, by addressing two key priorities, information exchange and increased capability to prevent and control aquatic invasive species.

Expected Partners and/or Participants

The Aquatic Invasive Species project will involve environmental government agencies—in particular, Conabio, DFO, CWS, USFWS and NOAA—as well as academics and the public in all three countries. The project complements multiple ongoing projects of the Global Invasive Species Program (GISP), the Aquatic Nuisance Species Task Force and its member agencies within the United States, and the International Joint Commission (IJC).

Linkages to other CEC Projects

- North American Biodiversity Information Network and, in particular, NABIN's collaborative initiative with the Inter-American Biodiversity Information Network (IABIN) on invasive species.
- The economic assessment of high priority pathways will be done in collaboration with the Environment, Economy and Trade program.
- The assessment of existing legal tools, institutions and policies will be carried out with the Law and Policy program.

2.3.1 North American Biodiversity Information Network

Project Summary

The North American Biodiversity Information Network (NABIN) is a collaborative network of people and institutions involved in the management and use of biodiversity information. This network aims to identify the best ways to bring together information sources to support decision making in the protection and conservation of biological diversity in North America. NABIN participates in an emerging worldwide biodiversity information network by interconnecting national and international initiatives.

Goals and Objectives

NABIN's goal is to improve access and integration of biodiversity information in North America for better conservation decision-making. The project accomplishes this through the following objectives:

- to encourage and facilitate the participation of institutions in developing standardized and harmonized means to access and integrate biodiversity information throughout North America;
- to increase the usefulness of biodiversity information for decision making by identifying sources of biodiversity information and developing means of integrating species data with observational and monitoring data, and ecological information;
- to stimulate and catalyze projects and networks that provide for information integration and sharing across national, regional, and global biodiversity initiatives;
- to provide a forum for the exchange of scientific and technical knowledge and expertise related to the integration and interoperability of biodiversity databases;
- to develop (and foster the development of) IT tools for improved information access, harmonization and inter-operability;
- to promote the free exchange of biodiversity information among private, public, and governmental entities.

Expected Results

- Improved access to biodiversity information in North America and hence improved ability for decision-making to embrace continental and regional perspectives.
- Increased open exchange of biodiversity information among private, public, and governmental entities.
- Improved understanding of the issues and opportunities surrounding biodiversity information exchange within North America.
- Increased availability of IT tools (including GIS analysis) to integrate, harmonize and analyze biodiversity information, and increased effective use of these prototype tools in decision-making applications and networks.

- An integrated perspective of the marine and terrestrial species of common conservation concern.
- Improved public awareness of biodiversity information and its availability.
- Improved availability of observational data for ecoregional monitoring.
- Improved ability to analyze and integrate programs of the CEC through the use of NABIN-developed tools.

Rationale

There is no comprehensive understanding at the North American level of what biodiversity information exists, where and how reliable it is, and how it may be accessed. Existing biodiversity information and data are scattered in various formats and only sometimes documented. Numerous initiatives by federal, state, provincial and non-governmental agencies are underway to develop national and global environmental databases, including information on species and other natural resources, information management standards, and different systems of taxonomic classification. NABIN seeks to identify the existence of data sets and tools related to North American biodiversity and the best means to present them publicly to enable better decision-making in biodiversity conservation.

The implementation of NABIN has focused on innovative opportunities to better access and exchange information. NABIN can then communicate the availability of information.

NABIN's approach is to provide access to data and tools that support management actions in and around ecological areas of critical concern. The enhancement of NABIN's web presence in linking tools and institutional data with CEC programs will facilitate cooperation among communities with similar concerns and will support environmental management in North America.

Progress to Date

- NABIN seed funding and facilitation has leveraged national and international funding for such initiatives as The Species Analyst (TSA), and ITIS.
- Outreach activities maintained NABIN's presence in the biodiversity information community, and encouraged experts to exchange practical experiences on information management.
- Recommendations on the development of a NABIN web site for information exchange were received and reviewed during a workshop and Expert Advisory Committee meeting.
- Information management standards have been chosen for the web site: the FGDC-CSDGM international standards for maps, and the Dublin Core standard for non-mapping data.

Actions 2003 – Overview

During 2003–2004, a web presence for NABIN will be developed that will provide an online NABIN forum for the exchange of scientific and technical knowledge, and tools for biodiversity data exchange and integration. The network of participating institutions and individuals will be made more formal and concrete through registered memberships in the electronic NABIN Forum. NABIN will also provide online reference information on NABIN-developed or agreed-upon tools and standards for biodiversity information integration and sharing, and links to the principal North American and global information sources, services, and networks, such as TSA, NatureServe, Conabio, EMAN, ITIS-NA, IABIN and GBIF, as well as to the Y2Y-NABCI pilot application site.

A demonstration of the web site with integrated mapping tools will be implemented for the CEC marine conservation initiatives, providing integrated access to marine protected areas data, marine ecosystems, and marine species of common conservation concern. This will demonstrate and test the concept of connecting databases on species within regional ecosystem maps and observational data, and apply results in support of CEC initiatives. Improvements will be made according to user feedback.

2003		Estimated Resources Required (C\$)
Action 1	Strengthening the NABIN network of partnerships and expanding collaboration for biodiversity information management strategies in North America	62,000
Activity 1	Develop a NABIN web presence in the form of a NABIN web site that will host the NABIN Forum, promote agreements for collaboration to establish links to key resources and partners, and provide NABIN-developed tools and demonstration of the web site	20,000
Activity 2	Develop an online NABIN Forum with registered membership to solidify outreach to museums, government agencies, academic institutions and NGOs. The Forum will provide the means to discuss ideas, views, and technology, on biodiversity information and GIS tools suitable for data exchange and integration	22,000
Activity 3	Confirm the membership and terms of reference of a NABIN Advisory Committee. Hold effective Advisory Committee meetings to establish priorities for extending NABIN activities and tools to ecosystems and observational data	20,000
Action 2	Demonstrate and promote the use of the NABIN web site and information management tools	55,000
Activity 1	Integration, testing, and implementation of a CEC pilot with information on marine conservation initiatives providing public access and receiving feedback	25,000
Activity 2	Analyze the needs and opportunities for integration of biodiversity and environmental information for North America to support CEC programs and how these information resources can best be made available to a wider audience. Also assess the institutional requirements and feasibility for NABIN to become the NA-CHM regional focal point	30,000
Total Resources Required		117,000

2004–2005	
Action 1	Continue to expand and facilitate NABIN
Activity 1	Strengthen knowledge-sharing and institutional participation in NABIN
Action 2	Improve and use NABIN online
Activity 1	Continue testing, expanding, and receiving feedback on the web site and its demonstration
Activity 2	Incorporate results of ecoregional monitoring online, and provide them to the CEC for the SOE, and the NAFTA 10-year retrospective

- NABIN-assisted unification of TSA and Remib is still underway and will provide users a more efficient and powerful information-gathering tool.
- The University of Kansas and associated researchers have developed applications in support of climate change scenarios that affect species' ranges and their habitats, using TSA.
- Developed in part with NABIN seed funding, the Yellowstone to Yukon Conservation Initiative pilot application is online at <<http://www.rockies.ca/birds>>. This innovative application is becoming a North American model to respond to transboundary conservation issues.
- The draft paper "The State of Copyright Law and Its Impact on Distributed Environments in the NAFTA countries" was updated. The document is available through the CEC and Canadian Heritage Information Network (CHIN), and Internet publication in English and French by CHIN is pending.
- A workshop to identify best practices for ITIS North America will be held in January 2003.

Public Participation

Public participation in NABIN will be encouraged through the establishment of and feedback from its online presence that links CEC programs, documents, and distributed databases containing biodiversity information.

Capacity Building

The unrestricted and free access to integrated biodiversity information offers North American communities and governments the means to better choose among policy and conservation options. NABIN also offers a feasible model using accepted standards for other environmental data communities to integrate and share information. In summary, by giving interested stakeholders access to integrated biodiversity information, NABIN provides a tool to assist policy makers, to enhance environmental management, to enable communities to participate in environmental issues, to increase collaboration and sharing of expertise, and to access an integrated framework of projects and initiatives.

Expected Partners and/or Participants

In the development of the North American biodiversity information network, the project will work with national and international initiatives such as:

- University of Kansas,
- University of Calgary,
- UNAM and other academic institutions,
- NatureServe, the Miistakis Institute, and other NGOs,
- Canadian Biodiversity Information Network (CBIN),

- Canadian Geospatial Data Infrastructure (CGDI)—Geoconnections,
- Canadian Information System for the Environment (CISE),
- Environment Canada,
- Agricultural Canada,
- The National Ecology Institute (*Instituto Nacional de Ecología*—Semarnat),
- Biodiversity Knowledge and Innovation Network (BKIN),
- Ecological Monitoring and Assessment Network (EMAN),
- National Oceanic and Atmospheric Association (NOAA),
- National Biological Information Infrastructure (NBII),
- US Geological Service (USGS),
- US Fish & Wildlife Service (FWS),
- US Environmental Protection Agency (EPA),
- Federal Geographic Data Committee (FGDC),
- *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio),
- *Instituto Nacional de Geografía Estadística e Informática* (INEGI),
- Yellowstone to Yukon Conservation Initiative (Y2Y),
- Baja to Bering Conservation Initiative (B2B),
- InfoRain—EcoTrust
- North American Bird Conservation Initiative (NABCI),
- Inter-American Biodiversity Information Network (IABIN),
- Species 2000,
- North American Integrated Taxonomic Information System (ITIS-NA),
- Biodiversity Information Commons,
- Global Biodiversity Information Facility (GBIF), and
- Clearinghouse Mechanism (CHM) of the Convention on Biological Diversity (CBD).

Linkages to other CEC Projects

NABIN is intended to support improvements to the integration of and access to information for biodiversity conservation within North America, and hence relates to virtually all CEC programs and projects. Given the CEC's mandate, NABIN will focus on transboundary case studies, which link people across the US/Canada border and the US/Mexico border. In pilot applications, NABIN will work with marine conservation initiatives, grassland SCCC projects, and CISE and EMAN (supporting NABCI in the Y2Y Region), to demonstrate how a network of biodiversity information can be used.

The mission of the Pollutants and Health program area is to establish cooperative initiatives on a North American scale to prevent or correct the adverse effects of pollution on human and ecosystem health. Guidance on methods to accomplish this mission is embodied within the language of NAAEC Article 10. These methods include: encouraging technical cooperation between the Parties; promoting pollution prevention techniques and strategies; recommending appropriate limits for specific pollutants, taking into account differences in ecosystems; recommending approaches for the comparability of techniques and methodologies for data gathering and analysis, data management, and electronic data communications; and promoting access to publicly available information concerning the environment that is held by public authorities of each Party.

This program area aims to pursue the following objectives:

- facilitating coordination and cooperation between the three countries on protection of the environment;
- enhancing comparability and compatibility between the three environmental protection systems;
- improving the knowledge base on issues of environmental pollution;
- developing technical and strategic tools to avoid, eliminate, reduce, or manage environmental pollutants; and
- improving the scientific, technical, and strategic capabilities of North American environmental protection agencies.

The activities planned and described in this document are the result of a coordinated effort between the five programs to maximize their combined benefit. These activities have also been designed to coordinate with and enhance the efforts of other North American environmental protection entities.

Program Initiatives

Five programs and their subsidiary projects specifically address the protection of human and ecosystem health.

Cooperation on North American Air Quality Issues

- Cooperation on North American Air Quality Issues

Sound Management of Chemicals

- Sound Management of Chemicals

North American Pollutant Release and Transfer Register

- North American Pollutant Release and Transfer Register

Pollution Prevention

- Capacity Building for Pollution Prevention

Children's Health and the Environment in North America

- Children's Health and the Environment in North America

3.1.1 Cooperation on North American Air Quality Issues

Project Summary

This project focuses on improving communications and interactions among the air quality management agencies of North America, establishing improved mechanisms for exchanging technical data, and developing strategies to address air quality issues of common concern. The action areas for 2003 are:

- strategic direction for cooperative air quality programs in North America;
- exchange opportunities for air quality professionals in North America;
- north American air emissions and greenhouse gas inventories;
- cross-border air issues set forth in the 2002 CEC Council Final Communiqué; and
- common methodologies for assessing population exposures to vehicle emissions in congested trade corridors.

Goals and Objectives

The goal of this project is to improve both the exchange of technical information and also the level of cooperation/coordination in air quality improvement activities between the air quality management agencies of the three countries.

The objectives include:

- fostering a greater awareness and understanding of the air quality management systems in North America;
- promoting compatibility in approaches to air quality management;
- establishing a regular exchange of technical information and air quality improvement strategies among North American air quality management officials;
- strengthening the overall capacity of air quality management;
- improving the quality, comparability, and accessibility of environmental information across North America, with a focus on air emissions inventories; and
- developing common methodologies to assess public health impacts from exposure to air pollution in trade corridors across North America.

Expected Results

- Improved understanding and interaction among North American air program administrators through meetings of the North American Working Group and through CEC program-related exchange opportunities.

- Continued progress in developing a North American air emissions inventory with an emphasis on national inventory development in Mexico, including a status report on data gaps and methodology development.
- Development and publication of a North American report on air emissions from the electricity generation sector.
- A scope-of-work plan to assess transboundary air issues identified in the 2002 CEC Council Final Communiqué, and initial assessments performed subject to available resources.
- Convergence on a common set of methodologies to investigate population exposure to air pollution along NAFTA trade corridors.

Rationale

The development of North American strategies to reduce air pollution and its long-range transport through the atmosphere can best be accomplished through cooperative partnerships among air quality management agencies and experts. Increased knowledge and understanding of the priorities and programs of the various air agencies in North America are keys for increased cooperation on a North American level. Greater exchange of information will lead to improved air quality management in North America and, at the same time, maximize resources and avoid duplicating efforts of other institutions.

As a medium, air generates environmental action across the borders of the three North American nations. Timely and accurate environmental information is essential for rational decision making and the development of sound public health and environmental policies. Strengthening the NAFTA partners' capacity to acquire and share knowledge among all sectors of society is fundamental to the ability of citizens to take informed actions.

Credible and timely information is crucial to addressing air pollution problems within transboundary airsheds. In order to enhance effective cooperation across borders, a fundamental starting point for a number of transboundary airshed management tools is easy access to a comprehensive, transparent, and comparable set of air emissions inventories among the North American jurisdictions. Each country has air emissions inventory information but the data are at varying levels of detail and accessibility, and in some cases are tabulated using different or unknown methods. Through the CEC, the countries are working together to improve the quality, comparability and accessibility of basic air emissions inventory information that will create the foundation for future transboundary air quality management programs.

Traffic in busy NAFTA trade corridors can also have a significant impact on public health and the environment in North America. For example, according to estimates in the northeastern United States, diesel exhaust from trucks comprises 33 percent of all nitrogen oxides and 80 percent of all particulate emissions from mobile sources. Nitrogen oxides contribute to the formation of smog (ground-level ozone) that causes lung scarring and aggravates lung disease. The US EPA has labeled diesel particulates as a likely human carcinogen, and diesel exhaust contains 40 known carcinogens, including benzene, 1,3-butadiene, formaldehyde, and acrolein.

In light of these health concerns, the CEC is supporting the development of common methodologies along major North American trade corridors and at selected border crossings to establish a consistent basis for evaluating potential health impacts from exposure to diesel exhaust and other vehicle pollution. This is being done through the development of a toolbox of common methodologies applicable across North America that will provide a shared frame of reference for assessing potential differences in public health responses. This will facilitate intercomparisons of the results across a number of different locations and help decision makers identify particular components within a given urban or corridor air pollution mixture that may call for different pollution control strategies relative to other locations.

Progress to Date

In 2002, the CEC supported a number of activities to bring together air quality experts in North America. Among these, the CEC convened an informal meeting of the top federal air quality administrators in each country during April 2002 in Dallas, Texas. This was the first time ever that the top federal air quality administrators have met in an informal setting to learn from each other about some of the chief air quality problems in each country. One successful outcome of this meeting was the development of Council Resolution 02-04 to establish a North American Air Working Group that can provide a continuing forum for discussion of air quality issues shared by the three North American countries.

The CEC also continued support for a network of air quality professionals in Mexico in collaboration with the *Fundación México-Estados Unidos para la Ciencia* (Fumec). The network expanded on activities initiated in 2001 with the inauguration of the group. These activities included a public workshop on Mexico City air quality progress, held during January 2002 in Ixtapan de la Sal, state of Mexico. The team of Nobel laureate Professor Mario Molina and Luisa Molina coordinated the meeting as part of an active research program on Mexico City air quality problems.

The CEC supported work through the Western Governors' Association to begin developing the basic elements of a national air emissions inventory in Mexico. This effort involved technical developments in estimating emissions from major pollution sources in Mexico, including detailed traffic studies of different-sized cities in Mexico to better characterize pollution from cars and trucks on Mexican roadways. The activity also supported a series of workshops in Mexico on air emissions inventory development that included participation from government, industry, and environmental groups in Mexico.

In coordination with the CEC PRTR program, the CEC air quality program also supported a number of consultations among Canada, Mexico and US officials with the goal of sharing expertise in developing reporting rules that will assist implementation of new reporting requirements in Mexico. These new requirements include not only mandatory reporting of toxic substance releases, but also emissions reporting of criteria air contaminants and greenhouse gases. This effort therefore has been able to take advantage of natural linkages between activities in the CEC air quality and PRTR programs.

The CEC organized a workshop on best available technologies (BAT) for the control of air pollution from sources in North America. The workshop presented existing information sources containing data and evaluations of feasible control technologies collected through federal, state, province, and local efforts. The workshop provided participants with the opportunity to learn of information resources that will be useful to air quality planners when evaluating feasible control technology options for pollution sources located in their jurisdictions.

In March 2002, the CEC helped bring together key stakeholders to develop a common understanding and mutual recognition of key principles for identifying and remediating excess pollution from malfunctioning heavy duty trucks travelling along trade corridors. Experts and stakeholders from across North America participated in a workshop to share experiences from various truck inspection programs in different jurisdictions. As a result of the workshop, the participants identified key areas of cooperation, opportunities for extending current programs, and a potential for mutual recognition across borders of the common elements of these programs.

The CEC continued support during 2002 for the Ciudad Juárez pilot project assessing public exposure to air pollution at a congested border crossing, and initiated a complementary assessment along the Canada/US border to evaluate the potential for the lessons learned in Ciudad Juárez to be applied along the Canada/US border. Based on the work along these two borders, the CEC organized a workshop that brought together experts in the field to discuss the key features of a common methodology for doing pollution exposure assessments along busy trade corridors in North America.

Actions 2003 – Overview

Actions in this project can be broken down as follows:

Establish strategic direction for cooperative air quality programs in North America

At the June 2002 CEC Council meeting in Ottawa, the CEC Council adopted Resolution 02-04, which establishes a “North American Air Working Group.” The mandate of the Working Group is to provide the CEC with advice and commentary related to the development of the annual CEC work plan for the Air Quality Program and other related activities. The Working Group will be a forum for active exchange of experiences among Working Group members regarding air programs in each member’s country and to inform members on a continuing basis of CEC activities that involve air issues. In 2003, the CEC will work with the Parties to establish the North American Air Working Group and develop a strategic direction for enhancing cooperation.

Exchange opportunities for air quality professionals in North America

This effort improves the overall capacity of air quality management within North America through the exchange of technical and strategic knowledge between the staffs of the three countries. The exchange program, begun in 1999, provides opportunities for technical and planning staff to meet with their counterparts from the other North American countries. These opportunities allow for the exchange of knowledge on specific issues of importance to each country.

North American air emissions and greenhouse gas inventories

In 2001, the CEC Council adopted Council Resolution 01-05 “Promoting Comparability of Air Emissions Inventories” in North America. The Council recognized a need for air emissions information to support regional transboundary air quality planning activities, and that the CEC could assist in addressing this need by building upon its experience with pollutant release and transfer register reporting in North America. To this end, the CEC is supporting efforts to develop professional capacity, grow critical infrastructure, and fill data gaps with the goal of increasing air emissions inventory comparability among the three NAFTA countries for a number of key air pollutants, including sulfur dioxide, nitrogen oxides, volatile organic compounds, particulate aerosols, and greenhouse gases. Activities will include an evaluation of the best approaches for estimating mobile source emissions in Mexico, providing power plant emissions data, and supporting infrastructure development for a distributed electronic database of North American emissions information. The CEC air quality program will also continue close cooperation with the CEC PRTR program through participation in PRTR Consultative Group meetings and other meetings of PRTR program administrators convened through the CEC.

Assessments of transboundary air issues under the 2002 CEC Council Final Communiqué

At its Ninth Regular Session, in June 2002, the CEC Council issued a Final Communiqué in which the Parties agreed to undertake several activities relating to air issues in North America. These activities consist of the following:

- Conduct a comparative study of the air quality standards, regulations, planning, and enforcement practices at the national, state/provincial, and local levels in the three countries, building on previous research and work undertaken by the CEC on air management systems of the three countries.
- Conduct a survey to obtain information on the comparability of North American environmental standards governing construction and operation of electricity generating facilities.
- Identify, explore and address issues related to barriers, challenges, opportunities and principles under which emissions trading systems might evolve.

During 2003, the CEC air quality program will begin assessing the scope of these activities through consultations with the governments and the public and, with the guidance and advice from the Air Working Group, begin initial work that will address each of these areas. Portions of this work will build upon previous CEC activities, including a 2000 draft report on air management systems in North America, and environmental information comparability and exchange activities within the CEC air quality, PRTR, and SMOC programs, as well as work related to market-based approaches to carbon sequestration, energy efficiency, and renewable energy.

There is strong interest worldwide in developing comparable air emission inventories across continents, and enhancing the international exchange of the information. The CEC will engage with comparable activities occurring elsewhere, such as with the OECD, relevant UN bodies, the Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), and related activities under the Convention on Long-range Transboundary Air Pollution (LRTAP).

Population exposure to vehicle emissions along trade and transportation corridors

The CEC is continuing work initiated in 2001 and 2002 to assess public exposure to diesel and other vehicle exhaust along congested transportation corridors in North America. Activities will be to sponsor one or more workshops to facilitate agreement on a common set of indicator criteria for exposure assessment methodologies applied along congested trade routes in North America, with an emphasis on diesel exhaust.

Second workshop on information clearinghouse for best available technologies for air pollution control

The CEC will convene a second workshop among experts from the three countries to continue defining the scope and functions of an electronic clearinghouse for information exchange on the best available technologies for air pollution control. This action will be a follow-up to the initial workshop held in 2002.

2003		Estimated Resources Required (C\$)
Action 1	Establish strategic direction for cooperative air quality programs in North America	69,000
Activity 1	Prepare background paper for Working Group to set strategic direction for their mandate	5,000
Activity 2	Hold the first meeting of the North American Air Working Group pursuant to Council Resolution 02-04	64,000
Action 2	Exchange opportunities for air quality professionals in North America. The exchange program provides travel support to air quality officials for meetings that satisfy established criteria and is subject to available funding	35,000
Action 3	North American air emissions and greenhouse gas inventories	325,000
Activity 1	Continue support for developing capacity, infrastructure, and data for a national air emissions inventory in Mexico, including stationary, mobile, and other important emission sources, in cooperation with the Western Governors' Association	105,000
Activity 2	Support North American air emissions inventory meeting in cooperation with NARSTO, to be held in fall 2003	60,000
Activity 3	Compile and provide emissions data on North American power plants aimed at developing data and infrastructure for a distributed electronic database of emissions information, with a data status report for review by the Parties	75,000
Activity 4	Continue ongoing collaboration with CEC PRTR program activities through participation in PRTR Consultative Group meetings and consultations of PRTR program administrators in each country	20,000
Activity 5	Support infrastructure development for a distributed electronic database of North American emissions information	65,000
Action 4	Assessments of transboundary air issues under the 2002 CEC Council Final Communiqué	75,000
Activity 1	Consultations with government and public on the scope of activities	25,000
Activity 2	Initial assessments in accordance with consultations and available resources	50,000
Action 5	Common methodologies to assess population exposures to vehicle emissions in congested trade corridors, with an emphasis on diesel exhaust	50,000
Action 6	Second workshop on information clearinghouse for best available technologies for air pollution control	35,000
Total Resources Required		589,000

2004–2005	
Action 1	North American Air Working Group
Action 2	Exchange opportunities for air quality professionals in North America
Action 3	North American air emissions and greenhouse gas inventories
Action 4	Assessments of transboundary air issues under the 2002 CEC Council Final Communiqué
Action 5	Common methodologies to assess population exposures to vehicle emissions in congested trade corridors
<i>Other actions to be determined</i>	

Public Participation

The North American Air Working Group will provide a new venue for involving the public in air issues of concern in North America. The North American air emissions inventory meeting co-sponsored with NARSTO will be open to the public. All inventory reports developed through efforts supported by the CEC will also be made available to the public. As the technical bases develop through the described activities, the CEC will be soliciting public input to identify and assess emissions inventory reporting and accessibility issues, including through participation in the PRTR Consultative Group meetings. All results developed through the transportation corridors health assessments are to be publicly disseminated through CEC publications and the peer-reviewed scientific literature.

Capacity Building

Greater exchange of information and experience among air quality officials will increase the overall quality, availability and accessibility of air quality data within North America. This will greatly expand the present capacity for cooperative air quality management throughout the North American region. Comparable, transparent and accessible air emission inventories will improve basic understandings of pollution sources and the amount of pollution they emit, thus helping to improve air quality strategies within transboundary airsheds.

The public health assessment brings together members of the public health research community with air quality planners in addressing air pollution impacts associated with high traffic-volume trade corridors. It is developing a general methodology that can be used by researchers when performing comparable studies elsewhere in North America, thus improving the capacity of air quality and public health experts to acquire and manage ambient air monitoring and public health databases for use in population exposure studies.

Expected Partners and/or Participants

The CEC will work with the following groups and organizations in the context of the air quality activities:

- senior policy people in the three governments related to air quality management;
- representatives of national air emissions inventory and PRTR programs, and inventory developers at the state/provincial and local government levels;
- interested nongovernmental organizations, industry associations, companies, researchers, academics and citizens;
- the Western Governors' Association;
- investigators and other interested participants involved in air quality studies in Mexico through an initiative headed by Nobel laureate Mario Molina; and
- the Pan American Health Organization (PAHO) and the Centers for Disease Control (CDC).

Linkages to other CEC Projects

Information shared through exchange and networking activities among air quality professionals in all three countries overlaps with inventory development, pollution prevention and information access activities within the SMOC and PRTR projects.

The assessments of transboundary air issues, particularly that of infrastructure and technical capacity needed for cross-border emissions trading, will benefit from close cooperation with the CEC Law and Policy and Environment, Economy, and Trade program areas.

The population exposure assessments in NAFTA trade corridors links with the Children's Health project as the air pollution exposure assessments will include as a sensitive subpopulation children living along congested trade corridors. Linkages with the Environment, Economy and Trade program area can help better elucidate the trade growth pressures that may exacerbate air pollution and congestion along trade routes, particularly in border airsheds with existing air pollution problems.

3.2.1 Sound Management of Chemicals

Project Summary

The Sound Management of Chemicals (SMOC) project is an ongoing initiative to reduce the risks of toxic substances to human health and the environment in North America. The project provides a forum for:

- a) identifying priority chemical pollution issues of regional concern;
- b) developing North American Regional Action Plans (NARAPs) to address these priority issues;
- c) overseeing the implementation of approved NARAPs; and
- d) facilitating and encouraging capacity building in support of the overall goals of SMOC, with emphasis on the implementation of NARAPs.

Goals and Objectives

The overall goal of this initiative is to provide a continuing and increasingly effective forum to facilitate cooperation on trilateral agreements and actions for reducing chemical pollution in North America using a life-cycle approach. The activities have been structured to establish an overall framework for the three countries to reduce chemical pollution, with particular focus on chemical substances that are persistent and toxic and which bioaccumulate in living organisms.

The specific objectives for the Sound Management of Chemicals include:

- assisting the SMOC Working Group to advance the implementation of the decisions and commitments contained within, or developed pursuant to, Council Resolution 95-05 on the Sound Management of Chemicals, including NARAPs for PCBs; mercury; chlordane; DDT; environmental monitoring and assessment, as well as NARAPs currently being developed for dioxins, furans and hexachlorobenzene and lindane and any new NARAP approved for development by the Council;
- providing impetus to the implementation of the NARAPs by supporting specific capacity building and implementation actions;
- monitoring progress in the implementation of the NARAPs;
- seeking to identify new and additional funds to assist the Parties with SMOC implementation;
- ensuring meaningful public input into the process; and
- integration of SMOC activities with other CEC programs.

Expected Results

The SMOC project will strive to reduce the risks of toxic substances to human health and the environment in North America with implementation of its initiatives. The project functions as a forum for cooperation on environmental issues of trilateral concern. Results will stem from implementation of key actions identified in NARAPs as well as continued capacity building efforts. Specific expected results for 2003 include the following:

- Share the Mexican experience on sustainable alternatives to DDT for malarial vector control with Central America through the implementation of the recently approved Global Environment Facility (GEF) project for DDT.
- Review the CEC's present methodology for addressing chemicals through the Substance Selection Task Force.
- Produce a final report from the PCB Task Force and close out that NARAP, with follow-up monitoring activities to be assumed by the Environmental Monitoring and Assessment Task Force.
- Develop recommendations on best available technologies for management of PCBs in Mexico.
- Further develop mercury monitoring and modeling in North America to facilitate decision making and priority setting for dealing with mercury issues under the NARAP.
- Develop programs in Mexico for mercury substitution in products as well as further developing public education and awareness campaigns and capacity building initiatives for mercury.
- Implement Phase I of the NARAP on dioxins and furans, and hexachlorobenzene, and development of Phase II.
- Commence implementation of the environmental monitoring and assessment NARAP with linkages to other CEC programs, such as Children's Health, and Biodiversity, by the evaluation of the effects of the toxic persistent pollutants on human health and biota.
- Establish a network in Mexico to monitor dioxins and furans and link with existing networks in Canada and the US.
- Develop a NARAP for lindane.
- Finalize a trilateral decision document through the Substance Selection Task Force on how to proceed with the management issues surrounding lead.
- Successfully leverage funds from the GEF and World Bank to implement such NARAP actions as the measurement of POPs in human blood in Mexico.

Rationale

Chemical pollutants—especially those that are persistent and toxic, that bioaccumulate in living organisms and that are transported long distances in environmental media and as products of commerce—have generated a great deal of public and political concern. The nature, scope and significance of the issues related to these chemicals call for effective international cooperation and response. Numerous provisions of NAAEC provide a formal mandate for this project.

In May 2001, with the signing of the Stockholm Treaty on Persistent Organic Pollutants, the 12 POPs identified in the treaty are now recognized as being of global concern. It is anticipated that implementation of the treaty obligations on a regional basis will be encouraged. The SMOC program has put North America in a leadership position in employing regional approaches. This treaty will allow the development of regional or sub-regional action plans.

The CEC recognizes the need to actively support Mexico in implementing decisions regarding chemicals management and supporting its commitments through capacity building, as well as by using CEC funds as seed money to obtain additional funding for implementing NARAPs and other aspects of Council Resolution 95-05.

Progress to Date

SMOC Working Group

A framework agreement in the form of Council Resolution 95-05 on the Sound Management of Chemicals was developed and adopted to facilitate regional cooperation and action to address persistent and toxic chemicals in North America. The SMOC Working Group was also established by Council under the Resolution to implement the decisions and commitments set forth therein. The initial focus was on the sections of the Resolution that are aimed at joint collaborative planning to develop NARAPs for chemicals that are persistent and toxic. NARAPs have been developed for three substances on the United Nations Environment Programme (UNEP) list of persistent organic pollutants (PCBs, DDT, chlordane), as well as for one heavy metal (mercury), and approved by the CEC Council. In Ottawa in June of 2002, Council approved a NARAP on environmental monitoring and assessment and resolved to begin implementation of this NARAP. Also in 2002, Council approved the development of a NARAP for lindane—a substance that, while no longer manufactured in North America, remains in use via existing stocks and in public health products (e.g., shampoo to control head lice). The NARAPs are intended to be results-oriented, therefore, the SMOC Working Group has also developed a guidance document to establish the ground rules for terminating NARAP activities.

In 2002, SMOC launched the development of an analysis document or white paper to broadly examine the issues surrounding chemicals management. This paper will aid in future planning and priority development within the SMOC program.

DDT Task Force

Mexico has made great strides in the implementation of the DDT NARAP. As of 2000, the country has successfully eliminated the use of DDT—surpassing the NARAP target of an 80-percent reduction by 2002. A grant proposal directed to the Global Environment Facility to assist with implementation of the NARAP on DDT was approved for US\$7.5 million in late May 2002. The Global Environment Facility (GEF) funding, as well as assistance provided through the Pan American Health Organization (PAHO) and the Canadian International Development Research Council in developing the proposal to the GEF, will help to transfer Mexico's experience to Central America and eventually to the Caribbean region. A status report on this NARAP is in progress and is to be presented to the SMOC Working Group in October 2002.

Chlordane Task Force

A final report on the implementation of the NARAP on chlordane was prepared and approved by the SMOC Working Group in the fall of 2001. The report's conclusions were that the NARAP can be considered to be a successful trilateral cooperative exercise designed to curtail the release into the environment of a toxic, persistent and bioaccumulative substance on a regional level. Members of the Chlordane Task Force have raised concerns about the potential for illicit imports and uses of chlordane. SMOC has brought this matter to the attention of the Enforcement Working Group, which will examine appropriate follow-up steps.

PCB Task Force

The PCB Implementation Task Force in 2002 prepared a status review of this NARAP, paying particular attention to the many aspects of the NARAP that are not dependent on the transboundary transport and destruction of unwanted PCB materials. Current legislation and regulations in Canada and the United States address the majority of NARAP action items related to PCB standards and requirements. Mexico's adoption of NOM-133-ECOL-2000 published in the DOF in December 2001 requires elimination of PCB contaminated equipment and PCBs residues stored prior to the norm within one year of its publication date. PCB-contaminated equipment from urban and rural facilities and sensitive sites (hospitals, schools, etc.) must be completely eliminated by 31 December 2008.

Mercury Task Force

Implementation of Phase II of the mercury NARAP continued in 2002 with projects such as the installation of two mercury wet deposition monitoring sites in Mexico, and linkage of these sites with the National Atmospheric Deposition Program—mercury Deposition Network. Phase II of the mercury NARAP will contribute to the following six actions:

- management of atmospheric emissions of mercury;
- mercury management in processes, operations and products;
- mercury waste management approaches;
- research, monitoring, modeling, assessment and inventories;
- communication activities; and
- implementation and compliance.

Other monitoring programs incorporating environmental monitoring and assessment included a pilot program to identify mercury “hot-spots” in the Zacatecas region of Mexico through sampling of soil and vegetation, and ambient air monitoring of mercury in selected sites in Mexico. These projects have not only contributed to data on mercury in Mexico, but have helped Mexico build capacity to address mercury-related issues. Also in 2002, public education efforts continued with posters and pamphlets distributed to schools and hospitals in Mexico that point out the dangers associated with mercury.

Dioxins and Furans, and Hexachlorobenzene Task Force

In 2002, Phase I of a NARAP was developed for dioxins and furans, and hexachlorobenzene. This NARAP addresses a cluster of compounds that are typically formed as unwanted byproducts and released to the environment during activities that include the production of certain commercial chemicals or the thermal destruction of household or municipal hazardous wastes. The CEC also supported the preparation of a baseline air emissions inventory of dioxins and furans. This has been linked to Canadian and US inventories to give an overall North American picture of releases and will assist in setting priorities for action under the NARAP.

Environmental Monitoring and Assessment Task Force

With the approval of the NARAP on environmental monitoring and assessment at the Council session in June 2002, work began on implementing the actions in the NARAP. Projects were undertaken to monitor mercury in selected environmental media, in conjunction with the Mercury Task Force, and a pilot project was completed which looked at the feasibility of installing up to six dioxin and furan air monitoring sites in Mexico.

Substance Selection Task Force

Under the “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Initiative,” the countries review substances or groups of substances that have been nominated with the aid of the Substance Selection Task Force, to determine if trinational action is warranted. In 2001, an evaluation was made of the process, which has been used to review an initial set of priority substances as set forth in Resolution 95-05 to determine if revisions are required in moving from a chemical-by-chemical approach to a broader context so that the process continues to reflect the mandate of the Resolution. The Substance Selection Task Force plans on recommending to develop a NARAP on lead and proposes to forward a final draft Resolution to this effect to the SMOC Working Group by the end of April 2003.

Capacity Building and Leveraging Strategy

Council has recommended that the SMOC program seek outside partners to aid in capacity building and form relationships with other international organizations. A multi-agency effort to acquire US\$7.5 million in GEF funding for capacity building related to DDT elimination in Mexico and Central America was undertaken. The approval process was in late May 2002. The CEC has been a partner since the preparation phase of the project and has contributed approximately US\$100,000 per year over the past two years. This project will continue to support the efforts of the CEC and Mexico to use alternatives to DDT for malarial vector control.

Work with Outside Partners

As well as working with the above-noted entities, the CEC signed a MOU with the United Nations Environment Programme (UNEP) in 2001 that identifies North America as one region in a global effort to conduct a regionally-based assessment of priorities for persistent toxic substances (PTSs). A report was prepared in 2002, identifying gaps in information on persistent toxic substances in North America as well as identifying new chemicals of potential concern and setting priorities for action concerning PTS chemicals. This report will be integrated by UNEP Chemicals into a larger global assessment that is intended to provide the Global Environment Facility with a science-based rationale for assigning priorities for action among and between chemical-related environmental issues, and to determine the extent to which differences in priority exist between regions. The Substance Selection Task Force will use information from the North American report to identify possible substances of mutual concern for future trilateral actions, while the Environmental Monitoring and Assessment Task Force can use this report to look at gaps in monitoring in North America.

Actions 2003 – Overview

SMOC Working Group

The SMOC Working Group will be holding two meetings in 2003 and providing project updates after each meeting. It is also responsible for reviewing the evaluation of the substance selection process and making recommendations on it to the Council. The Working Group will continue its efforts to implement recommendations on capacity building and public education that were discussed at the 2002 session between the Joint Public Advisory Committee and the Working Group. These have been included in the SMOC work plan and incorporated into SMOC activities. The SMOC Working Group will continue to increase public participation in its projects while endeavoring to create more linkages with other CEC programs.

DDT Task Force

The DDT NARAP was brought to completion in 2002, due to Mexico having carried out agreed-upon actions more quickly than anticipated. However, the capacity building work that has been undertaken under Mexico's leadership in Central America will continue with financial support from the Global Environment Facility (GEF). Periodic progress reports will continue.

Chlordane Task Force

The chlordane NARAP was completed in 2001. Status reports will be issued periodically regarding illegal imports of chlordane into Mexico.

PCB Task Force

The PCB NARAP action items related to standards and requirements have been addressed in each country. The task force has agreed to continue monitoring the implementation of the NARAP in 2003 in all three countries, exchanging information on dispersive uses, sampling/analysis methods, waste reduction and recycling, incidental generation of PCBs, and contaminated sites. The task force will hold a workshop on the Environmentally Sound Management of PCBs as a substitute for the development of a code of practice on the treatment/disposal of PCB wastes and several other action items aimed at making standards and protocols compatible. Finally, it will continue to track the issue of PCB monitoring, both environmental verification and tracking of actions, through the environmental monitoring and assessment NARAP. The SMOC program will undertake a review to verify if the NARAP items have been successfully addressed and if this NARAP can be finalized with continued monitoring being addressed under the environmental monitoring and assessment NARAP.

Mercury Task Force

Implementation of actions in the mercury NARAP will continue. Priorities will focus on funding proposals for capacity building in Mexico emphasizing public education and building the awareness of health professionals and other relevant officials. Efforts will continue with pilot programs in life-cycle management for mercury-containing products, as well as other programs to examine the extent of mercury pollution in Mexico, such as collecting dental amalgams and car switches and the substitution of mercury thermometers.

Dioxins and Furans, and Hexachlorobenzene Task Force

Following the public review of the draft Phase I NARAP and anticipated Council approval in 2003, implementation is foreseen for 2003 while preparatory work on Phase II begins. Work at key junctures of NARAP implementation will be coordinated with activities of the International Joint Commission (Canada and the United States) and its International Air Quality Advisory Board, as well as the Environmental Monitoring and Assessment Task Force. For example, work will commence on setting up a dioxins/furans air-monitoring network in Mexico through collaboration between the two task forces. This NARAP is an excellent example of the widening approach being taken by the SMOC program in dealing with clusters of chemicals.

Environmental Monitoring and Assessment Task Force

Implementation of NARAP actions will continue in 2003. These consist of four key sets of actions: short-term actions to address monitoring needs for mercury and dioxins and furans; medium-term actions to build a North American core group of experts to expand the network; long-term actions aimed at assembling a comprehensive North American monitoring and assessment network; and a capacity-building element aimed at seeking significant financial resources to allow Mexico to establish its own monitoring network and support infrastructure. Other elements will include identifying children's exposure to NARAP substances, with the help of the CEC program on children's health and the environment, and a North American gap analysis of family/child environmental health indicators and monitoring parameters as they apply to NARAP substances.

Lindane Task Force

The Lindane Task Force was formed in latter 2002 and efforts began to develop the NARAP. In 2003 the final draft of the NARAP will be completed and posted on the CEC's web site for public comment. After the incorporation of comments the NARAP will go to Council for approval and implementation of the actions therein will begin.

Substance Selection Task Force

The Substance Selection Task Force will hold workshops on the issue of managing chemicals in groups or clusters rather than on a substance-by-substance basis. This is an extension of previous initiatives such as the NARAP on dioxins and furans, and hexachlorobenzene initially designed to address chemicals management at a broader level. The Task Force will finalize its decision on lead.

Leveraging Strategy

Together with Mexico, the SMOC Working Group will examine the possibility of engaging Central American nations in environmental initiatives of mutual interest in an effort to increase capacity building and leveraging of funding. Likewise, the World Bank has invested C\$100,000.00 in a CEC-sponsored project to monitor chemical levels in blood. The CEC has been appointed as executing agency for funds allocated to aid Mexico in launching its National Implementation Plan on POPs (*Programa Nacional de Implementación de Contaminantes Orgánicos Persistentes*). In 2003, capacity-building efforts will continue to focus on major funding proposals submitted to international financial institutions that would enhance Mexico's capacity to implement specific provisions of the current NARAPs, as well as the more general provisions of the SMOC Resolution.

2003		Estimated Resources Required (C\$)
Action 1	SMOC Working Group: supporting the core functions of the SMOC Working Group, including the overall direction and coordination of the SMOC initiative	131,000
Activity 1	Two meetings and conference calls of the SMOC Working Group	56,000
Activity 2	Technical assistance for strategic implementation of SMOC (in-house consultant)	40,000
Activity 3	Reporting and outreach activities from SMOC to the public	10,000
Activity 4	Reporting to Alternate Representatives and Council, review of NARAP development and implementation	5,000
Activity 5	Developing support documents and products for use in leveraging outside funding	15,000
Activity 6	Updating SMOC data contact and stakeholders list	5,000
Action 2	PCB Implementation Task Force: support for task force meetings, conference calls and finalization of actions in the NARAP	30,000
Activity 1	Task Force meeting and conference calls	10,000
Activity 2	Workshop on Best Available Technologies for PCB management	20,000
Action 3	Mercury Implementation Task Force: involves the coordination of trilateral implementation activities, information exchange, and review of Phase II mercury NARAP implementation activities	112,000
Activity 1	Mercury Deposition Monitoring Network—year 2 Install and operate two mercury monitors in Mexico. The project will include capacity-building wet deposition monitoring technologies for mercury	10,000
Activity 2	Development of North American mercury emissions reference data	5,000
Activity 3	Public communication, education and awareness to risks linked to mercury	20,000
Activity 4	Mercury substitution and elimination demonstration projects	10,000
Activity 5	Initiate a capacity-building project for mercury	10,000
Activity 6	Scoping workshop on the links between persistent pollutants and birds at a trinational scale	15,000
Activity 7	Support to Task Force (meetings, conference calls, consultant services, etc.)	25,000
Activity 8	Preparation of NARAP progress report and related communications products	2,000
Activity 9	Expansion of pilot project on soil and vegetation sampling	15,000

Action 4	Dioxins and Furans, and Hexachlorobenzene NARAP Implementation Task Force: involves support for initiation of Phase I and development of Phase II of the NARAP on dioxins and furans, and hexachlorobenzene (i.e., similar to the methodology followed for Phase I and II of the NARAP on mercury)	100,000
Activity 1	Task Force meeting, consultations with stakeholders, conference calls	30,000
Activity 2	Initiation of projects linked to the monitoring and assessment NARAP on monitoring dioxins in the environment	40,000
Activity 3	Implementation of projects for development of inventories, pollution prevention and pollution control	30,000
Action 5	Environmental Monitoring and Assessment NARAP Implementation Task Force: this includes implementation of the NARAP action items as well as support for task forces with input by experts and stakeholders	120,000
Activity 1	Task Force meeting, consultations with stakeholders, conference calls	20,000
Activity 2	Implementation. Actions to address monitoring needs for NARAP Task Forces, including mercury, dioxins and furans, PCBs, human blood	40,000
Activity 3	Implementation. Actions to address longer-term monitoring and assessment requirements for North America	40,000
Activity 4	Workshops on monitoring field and lab procedures	20,000
Action 6	Lindane Task Force: supports the development of a NARAP on lindane	40,000
Activity 1	Task Force meetings and conference calls	20,000
Activity 2	Experts workshop	15,000
Activity 3	NARAP development	5,000
Action 7	Substance Selection Task Force: involves support for one or more meetings of the Substance Selection Task Force and several conference calls	45,000
Activity 1	Task Force meetings and conference calls	20,000
Activity 2	The Task Force will finalize a decision on lead for transmittal to the SMOC working group	5,000
Activity 3	A workshop will be held to discuss the path forward for dealing with groups or clusters of chemicals and how to effectively deal with clusters of chemicals within the CEC framework	20,000
Action 8	Task Force reviews: review and report on the implementation of the chlordane and PCB NARAPs and prepare final reports if it is determined that the actions have been completed	20,000
Activity 1	Chlordane review	10,000
Activity 2	PCBs review	10,000
Action 9	Capacity-building program	239,000
Activity 1	Support for the multi-agency effort to acquire funding for capacity building related to DDT elimination in Mexico and Central America. In 2003 and 2004 the CEC will contribute approximately US\$100,000 per year	157,000
Activity 2	Using CEC capacity-building resources to leverage larger funding for implementation of NARAP commitments, for example, from the GEF or the World Bank: this activity requires extensive preparation of project proposals and a time-consuming project start-up cycle	67,000
Activity 3	Efforts will continue to focus on major funding proposals submitted to international institutions to enhance capacity to implement specific provisions of the current NARAPs	15,000
Total Resources Required		837,000

2004–2005	
Action 1	SMOC Working Group: will review the CEC's approach to chemicals management, taking into consideration new developments that may arise. The SMOC Working Group may also discuss the option of further expanding its repertoire beyond chemicals that are persistent, toxic and bioaccumulative to include those which are acutely toxic
Action 2	Mercury Implementation Task Force: will continue to implement the actions of the NARAP and build capacity in Mexico for dealing with mercury-related issues; as actions of the NARAP are accomplished, a review will be conducted to assess the successfulness of the NARAP and the possibility of its completion
Action 3	Dioxins and Furans, and Hexachlorobenzene NARAP Implementation Task Force: It is expected that efforts will continue to implement the actions in Phase I of the NARAP, while implementation of the developed Phase II will begin: capacity building will focus on monitoring and assessment of dioxins, furans and hexachlorobenzene in Mexico
Action 4	Environmental Monitoring and Assessment NARAP Implementation Task Force: actions will continue to be linked with other NARAPs to attain the short-, medium- and long-term goals associated with monitoring and assessment of chemicals in air, water and the environment
Action 5	Lindane Task Force: It is expected that implementation of the actions set forth in the NARAP will begin in 2003 after its approval by Council
Action 6	Substance Selection Task Force: will continue to thoroughly review substances nominated by the Parties and make recommendations to the SMOC Working Group regarding actions for these substances (subject to discussion by SMOC, these may include groups or clusters of chemicals, waste streams or classes of acutely toxic chemicals)
Action 7	Task Force Reviews: as NARAP actions are successfully completed, reviews will assess the possibility of closing out completed NARAPs; this may include the NARAPs on PCBs and mercury
Action 8	Capacity-building program and leveraging strategy: efforts will continue to build capacity to deal with chemical management issues in all three countries, focusing on Mexico and support for its National Implementation Plan on POPs as well as continuing efforts to transfer information and capacity related to sustainable alternatives to DDT for malarial vector control (funding for these efforts will continue to be leveraged from international funding institutions)

Public Participation

SMOC continues to include public participation in all levels of its initiatives. NARAPs are developed through task forces containing public as well as government, industry, NGO and academic members. After NARAPs are drafted, they are posted on the CEC web site for a period of 45 days for public review and comments. The task force reconvenes after this period to address the comments and concerns of the public and to incorporate suggestions into the NARAPs.

The SMOC program strives to include public comments and participation in annual SMOC public sessions where members of the public are invited to give comments and provide suggestions for future direction of the program.

In 2003 the SMOC program will look further into new approaches to public education, information and awareness raising. The potential value of producing a video/CD/DVD on the history and achievements of the SMOC program and its NARAPs for public education will be investigated, and the program will attempt to engage local governments to aid in the implementation of NARAPs.

Capacity Building and Leveraging Strategy

In addition to the development and implementation of NARAPs, an important feature of the SMOC initiative is its capacity-building/leveraging program. Activities under this aspect of the program are intended to assist in generating financial resources from a variety of international agencies to with a view to assisting Mexico in the implementation of NARAPs and to meet other needs arising from Council Resolution 95-05 on the Sound Management of Chemicals.

The main field of capacity building on the Mexican and Central American project so far is developing demonstration areas in Mexico where the evaluation of exposure of humans and ecosystems to DDT can be conducted. Efforts to date have focused on the Pacific coast of Oaxaca and Chiapas, where groups of people (mainly children) as well as sediments and some elements of the flora and fauna have been sampled and analyzed from 2001 and 2002. These activities have the intention to build capacity on the development of sampling and analysis methods for the quantification and assessment of trends for DDT and its metabolites.

Other capacity-building efforts have helped to establish mercury wet deposition monitors for two sites in Mexico. A pilot field-sampling project was launched to determine the extent of mercury contamination in the state of Zacatecas, Mexico, so that a more in-depth and targeted study can follow; and Canada loaned two Tekran portable field monitors to establish baseline mercury in air readings at key locations in Mexico.

Expected Partners and/or Participants

The Mexican experience achieved under the DDT NARAP will be shared with the seven Central American countries through a project that demonstrates that alternative methods for malaria vector control without DDT or other persistent pesticides are effective. The project also shows that the outcomes are replicable, cost-effective and sustainable. These activities are being funded jointly by the CEC and Global Environment Facility. The GEF will provide approximately US\$7.5 million. This contribution, together with the funds invested by the eight participating countries (about US\$5.4 million), US\$754,000 from the Pan American Health Organization, and US\$300,000 over three years from the Commission (not including the US\$100,000 previously given during the preparation phase, for a total of \$400,000) will yield a grand total of US\$13,905,000.

International and binational institutions such as the International Joint Commission, the International Air Quality Advisory Board, and the New England Governors and Eastern Canadian Premiers are involved as participants or as co-sponsors of events. PAHO has become an important partner for the implementation of the GEF DDT project. Furthermore, international, binational and national aid and lending agencies such as the GEF and the World Bank are likely to be increasingly involved in the future.

Linkages to other CEC Programs

The SMOC Working Group will engage the CEC's Children's Health and Environment program and the Conservation of Biodiversity, and Environment, Economy and Trade program areas to ensure that work, as applicable, is focused on toxic chemicals, including pesticides, that particularly affect wildlife, ecosystems, children, and other high-risk populations. In developing new NARAPs, the SMOC program will consult with the Children's Health and Environment program to ensure that a children's health perspective is incorporated into the actions.

The Conservation of Biodiversity program area will be engaged to investigate the monitoring and assessment of chemicals and how their presence relates to the vulnerability of wildlife.

In cooperation with the Law and Policy program area, enforcement issues will be examined to determine if there are opportunities to improve policies and programs to meet North American needs such as in the area of illegal importation or sale of banned pesticides.

Linkages will also be made between certain NARAPs and the PRTR initiative to determine whether PRTRs can be used as tracking mechanisms for measuring progress under the NARAPs. SMOC will work with the Pollution Prevention and the PRTR initiatives to design a North American challenge program to foster reductions in toxic releases and transfers.

With Council approval of the environmental monitoring and assessment NARAP in 2002, the CEC's North American Fund for Environmental Cooperation (NAFEC) is another source of potential funding for monitoring and assessment initiatives at the community level. Project proposals submitted to NAFEC will be examined to ascertain whether they can also help advance the goals of this NARAP.

3.3.1 North American Pollutant Release and Transfer Register Project

Project Summary

The CEC's North American Pollutant Release and Transfer Register (PRTR) project tracks and publishes information on the amounts, sources and handling of toxic chemicals from industrial activities in North America, including analyses of trends in pollutant releases and transfers since the early days of NAFTA. Each year the CEC publishes the *Taking Stock* report and web site, which provide a unique regional picture of pollutant data in North America, based on available data from the national PRTR systems. The project also seeks to facilitate collaboration among the national PRTR programs to enhance the comparability among the three reporting systems, with a view to gaining a sharper picture of the sources and trends in pollutant releases and transfers across the continent. Advancing the public's right to know and involving stakeholders and interested groups is another important aspect of the project. At a global level, the CEC collaborates with other international entities (e.g., the Organization for Economic Cooperation and Development—OECD, the Intergovernmental Forum on Chemical Safety—IFCS, United Nations Economic Commission for Europe—UNECE) in order to share experiences and contribute to the development and use of PRTRs worldwide.

Goals and Objectives

The primary goal of the project is to stimulate reductions in pollutant releases and transfers from industrial activities by tracking and publishing information on the amounts, sources and handling of toxic chemicals of common concern. The project also seeks to enhance the comparability among the national PRTRs and to increase access to and use of PRTR data by the public and interested groups to promote environmental improvements.

Specific objectives of the project include:

- to provide a timely annual overview and analysis of North American pollutant releases and transfers through the *Taking Stock* reports and the *Taking Stock Online* web site;
- to implement the Action Plan to Enhance Comparability Among the PRTRs in North America, and thereby increase the amount of comparable information on pollutant releases and transfers in North America ;
- to gain further insight into pollution-related issues of particular interest in North America by undertaking special analyses;
- to foster the use of PRTRs and PRTR data by citizens, communities, academia, industry, government and other interested parties to promote environmental improvements and address policy-relevant questions; and
- to provide leadership in the global context by sharing North American PRTR-related expertise and experiences.

Expected Results

The project is expected to stimulate reductions in pollutant releases and transfers, assist governments in finding opportunities to improve policies and programs, and contribute to a more empowered public by improving awareness of and access to information on the sources and handling of toxic chemicals from industrial activities in North America.

Specific expected results include:

- increased public and stakeholder access to comparable PRTR data within the North American region;
- improved understanding of trends in pollutant releases and transfers, including reasons for the changes;
- improved comparability of PRTR data across North America;
- a fully operational, mandatory and publicly accessible PRTR in Mexico;
- an expanded range of uses for PRTR data by various groups (e.g., industry, NGOs, government, academics); and
- a greater profile for North America's PRTR experiences, and increased support for PRTR development and use worldwide, as a result of CEC involvement in various international fora related to PRTRs.

Rationale

Pollutant release and transfer registers (PRTRs) provide data on types, locations and amounts of substances of concern released to the environment and transferred off-site by industrial and other facilities. As stated in CEC Council Resolution 00-07, PRTRs are valuable tools "for the sound management of chemicals, for encouraging improvements in environmental performance, for providing the public with access to information on pollutants released and transferred into and through their communities, and for use by governments in tracking trends, demonstrating progress in pollution reduction, setting priorities and evaluating progress achieved through environmental policies and programs."

Over the past decade there has been a growing interest worldwide in PRTRs and related issues of public access to environmental information. Among the principles and commitments agreed to in *Agenda 21* at the 1992 United Nations Conference on Environment and Development were provisions calling for the development of emissions inventories and programs to promote the public's and workers' right-to-know. The Organization for Economic Cooperation and Development (OECD), of which all three North American countries are members, issued a Council Recommendation in 1996 which calls upon member countries to establish, implement and make public national PRTRs and

promote comparability among national PRTRs and sharing of PRTR data between neighboring countries. The Intergovernmental Forum on Chemical Safety (IFCS) has also focused on the topic of PRTRs, including a special session on PRTRs in October 2000. A working group on PRTRs has also been formed in the context of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters with a view to developing a PRTR Protocol under the Convention. CEC involvement in these international initiatives allows for a sharing of the North American experience with other countries and regions, enables CEC and the North American countries to benefit from technical work to support PRTR implementation, and allows North America to contribute to the evolving policy framework for PRTRs worldwide.

North America is well positioned to serve as a global leader in the development and use of PRTRs nationally and regionally. Each of the three North American countries has a national PRTR program. The US program, called the Toxics Release Inventory (TRI), first collected data from facilities for the 1987 reporting year. Facilities began submitting data to the Canadian National Pollutant Release Inventory (NPRI) for the 1993 reporting year. In Mexico, 1997 was the first year of reporting under the voluntary *Registro de Emisiones y Transferencia de Contaminantes* (RETC) program. Through the CEC, the North American countries are breaking new ground by putting together and analyzing the data collected through these national programs on a regional scale, and making that information available to the North American public through the annual *Taking Stock* reports and web site.

Progress to Date

In May 2002, the CEC published *Taking Stock 1999*, the sixth in the annual series of *Taking Stock* reports on North American pollutant releases and transfers. The report featured the first-ever five-year look at trends in pollutant releases and transfers in North America. The *Taking Stock* reports present an overview and analysis of data on pollutant releases and transfers from industrial facilities in North America, based on information collected through the national PRTR programs. Since 2001, the CEC has also provided access to North American PRTR data through the *Taking Stock Online* web site, which provides users with direct access to the matched data sets used in the *Taking Stock* reports through a flexible 'query builder' function.

To compare data from national PRTRs with different reporting requirements, the CEC relies on selecting the elements they have in common to create a matched data set. This matched North American data set is the basis for the information and analyses provided in the *Taking Stock* reports and on the web site. To date, *Taking Stock* includes data from Canada and the United States only; comparable data from Mexico are not yet available. Since the start of the PRTR project, there has been a 50 percent increase, generally speaking, in the amount of data that are comparable between the Canadian and US PRTRs.

Mexico has made great strides recently in the development of its PRTR program. In December 2001, legislation was passed providing for a mandatory, publicly accessible PRTR. Mexico is currently developing the regulations needed to implement the mandatory program. Two multi-sectoral events were held in early 2002 in Mexico City, with support from the CEC, to engage stakeholders in the further development of the RETC and to share experiences gained in Canada and the United States. Visits of RETC staff to the TRI and NPRI offices were organized in fall 2002 to help build capacities and to facilitate exchange of information and experience among the national PRTR officials.

In developing the *Taking Stock* reports, the CEC uses an extensive consultative process that includes circulation of a discussion document, a public meeting of the trinational multi-stakeholder Consultative Group, receipt of written comments, and the preparation of a response-to-comments document. The CEC PRTR project has benefited greatly from the input and suggestions obtained through this consultative process. In December 2001, the Consultative Group discussed opportunities for linkages between PRTRs and other program areas of the CEC, including the sound management of chemicals, biodiversity, children's environmental health, NAFEC and the air quality program. The meeting was held back-to-back with a public consultation on the development of a North American inventory of criteria air contaminants, organized by the air quality project. On 16-17 October 2002 in Cuernavaca, Mexico, the PRTR Consultative Group met in conjunction with the Sound Management of Chemicals (SMOC) program to further explore linkages, particularly with respect to mercury, dioxins, furans and hexachlorobenzene.

At the Fourth Annual Regular Session of the CEC, in June 1997, the Ministers passed Council Resolution 97-04, "Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs)," which commits the three governments to work toward adopting more comparable PRTRs, while recognizing that each country has its own approach to the collection and use of environmental data. Since that time, the officials from the three national PRTR programs have worked together, with the assistance of the Secretariat, to identify opportunities for increasing comparability among the national PRTRs. In June 2000, the CEC Council issued Resolution 00-07, thereby recognizing a set of basic elements that are central to the effectiveness of PRTR systems and agreeing to continue its individual and collective efforts to promote PRTRs, including public access to and use of PRTR data, domestically, regionally and internationally. In June 2002, the CEC Council adopted the Action Plan to Enhance Comparability Among PRTRs in North America through Council Resolution 02-05. This Action Plan outlines areas in which comparability among the three systems is lacking, and identifies actions to be taken by the three governments to improve comparability.

Actions 2003 – Overview

Annual meeting of Consultative Group for the North American PRTR project

The annual public meeting of the PRTR Consultative Group will be held in fall 2003, as a forum for the public and interested groups to provide input into the further development of the *Taking Stock* series, including the report, web site and special analyses. The meeting will also be an opportunity for interested parties from throughout North America to share information and discuss a selected PRTR-related topic of interest.

The annual public meeting of the PRTR Consultative Group will be held in fall 2003, as a forum for the public and interested groups to provide input into the further development of the *Taking Stock* series, including the report, web site and special analyses. The meeting will also be an opportunity for interested parties from throughout North America to share information and discuss a selected PRTR-related topic of interest.

Development and publication of *Taking Stock* reports

In 2003, the *Taking Stock 2000* report will be published, the report on 2001 data will be developed, and planning for the 2002 data report will be initiated. Efforts will be made to include data from Mexico's evolving PRTR program, wherever possible.

Operation, updating and further development of the *Taking Stock* web site

The CEC will update the data sets in the *Taking Stock* web site and undertake further developments to the site to improve its usability, resources permitting and in light of feedback from users.

Facilitating action to enhance the comparability of North American PRTRs

The CEC Secretariat will work with the national PRTR programs to advance the implementation of the Action Plan to Enhance Comparability Among PRTRs in North America, adopted by Council in June 2002. This work will include organizing periodic teleconferences and at least one face-to-face meeting in 2003, and contracting the development of issue papers and/or analyses.

Promoting use, access and understanding of PRTR data

The project will continue to seek to advance the application of PRTRs and PRTR data to current environmental challenges. The results of the ad hoc PRTR group projects undertaken in 2001–02 will be actively disseminated. A call for papers will be issued, in preparation for a conference on PRTR data uses in 2004, to be organized as a follow-up to the academics' workshop held in March 2002. CEC will also take steps to increase utilization of the *Taking Stock Online* web site, which gives users flexible access to North American PRTR data.

Support for PRTR implementation in Mexico

To support the implementation of the mandatory and publicly accessible PRTR system in Mexico, the CEC Secretariat, in collaboration with the PRTR program officials from the three countries, will provide capacity building assistance to Mexico's PRTR program, the RETC. As specified in Council Resolution 02-05, areas for support will include: data collection and processing; data quality; use of PRTR data to facilitate environmental improvements; and public access to RETC data on a chemical-specific and facility-specific basis. Activities will include consultant support to the RETC program, and facilitating exchange of information and experience among the three countries.

Exploring options for trilateral program to foster reductions in toxic releases/transfers

In its Resolution 02-05, Council directed the Secretariat to work with the Parties to explore ways of fostering reductions by industries across North America in the release and transfer of substances of common concern, possibly including a trilateral challenge program that would build on the successful US 33/50 Program, the Canadian Accelerated Reduction/Elimination of Toxics (ARET) program, and other related programs. Such a program would be timed to coincide with the implementation of mandatory PRTR reporting in Mexico. The focus in 2003 will be to identify options, in consultation with the national PRTR representatives, interested stakeholders, and the SMOC and pollution prevention projects.

Coordination with OECD and international PRTR activities and general outreach

Recognizing the growing interest in PRTRs worldwide and the potential for North America to play a leadership role, the CEC will continue and increase its collaboration with the OECD, relevant UN bodies and other regions and countries. This will include the involvement of the CEC in meetings and activities of the Interorganization Program for the Sound Management of Chemicals (IOMC) PRTR Coordinating Group, the OECD Task Force on Release Estimation Techniques, the PRTR working group meetings organized by the Secretariat of the Aarhus Convention, and preparatory activities for the Intergovernmental Forum on Chemical Safety (IFCS) Forum IV meeting in November 2004.

2003		Estimated Resources Required (C\$)
Action 1	Annual meeting of the Consultative Group	50,000
Action 2	<i>Taking Stock</i> data analyses and report development	150,000
<i>Activity 1</i>	<i>Taking Stock 2001 (Phase II)</i>	110,000
<i>Activity 2</i>	<i>Taking Stock 2002 (Phase I)</i>	40,000
Action 3	Editing, translation, printing, distribution of <i>Taking Stock</i> reports (2000 and 2001 data reports)	150,000
Action 4	Operation, updating and further development of the <i>Taking Stock</i> web site	15,000
Action 5	Facilitating action to enhance the comparability of North American PRTRs	18,000
Action 6	Promoting use, access and understanding of PRTR data	18,000
Action 7	Support for PRTR implementation in Mexico	30,000
Action 8	Exploring options for trilateral program to foster reductions in toxic releases/transfers	4,000
Action 9	Coordination with OECD and international PRTR activities and general outreach	10,000
Total Resources Required		445,000

2004–2005	
Action 1	Annual Meeting of the Consultative Group
Action 2	<i>Taking Stock</i> data analyses and report development: <i>Taking Stock 2001</i> to be published in early 2004; the <i>Taking Stock 2002</i> report will be developed in 2004 and published in winter 2004/05; <i>Taking Stock 2003</i> will be initiated in 2004 and published in 2005
Action 3	Editing, translation, printing and distribution of <i>Taking Stock</i> reports
Action 4	Special feature report: In 2004, the CEC will develop a special feature report on a particular topic of interest, to be selected by the Secretariat taking into account suggestions from the Consultative Group as well as the input and interests of the national PRTR representatives
Action 5	Operation, updating and further development of the <i>Taking Stock</i> web site (annually)
Action 6	Facilitating action to enhance the comparability of North American PRTRs: The CEC Secretariat will continue to work with the national PRTR programs on the implementation of the Action Plan to Enhance Comparability Among PRTRs in North America. In late 2004 and early 2005, an updated Action Plan will be prepared for consideration by Council in June 2005
Action 7	Promoting use, access and understanding of PRTR data: In 2004–05, the CEC will continue activities in this area. In 2004, a conference on PRTR data uses will be held, as an opportunity for academics, students, industry, NGOs and others to share their experiences with using PRTR data in a variety of contexts to address environmental issues and challenges
Action 8	Trilateral program to foster reductions in toxic releases/transfers: Taking into account options developed in 2003, a the trilateral challenge program to stimulate reductions in toxic releases/transfers will be initiated in 2004 or 2005, depending upon the availability of mandatory and facility-specific PRTR data in Mexico
Action 9	Coordination with OECD and international PRTR activities and general outreach: The CEC will continue to collaborate with the OECD, relevant UN bodies and other regions and countries on PRTR-related activities, and will conduct general outreach. The CEC will participate in the Forum IV meeting of the IFCS in Thailand in November 2004

Public Participation

Consultations and collaboration with stakeholders and interested groups—including governments, industry, public interest groups, academics and others—are an essential part of the CEC's PRTR program. A trinational, multi-stakeholder Consultative Group, composed of a broad range of interested groups and individuals from the three countries, has helped to guide the development of the annual *Taking Stock* reports and other aspects of the CEC PRTR program. The Consultative Group currently numbers more than 200 people from all three countries, including industry representatives, academics, environmental and public health advocates, community activists, government representatives at the federal, state/provincial and local levels, researchers, policy analysts, and interested citizens. A number of these individuals and groups have also become directly involved in implementation of project activities, e.g., through the ad hoc PRTR group. Individuals interested in becoming part of the Consultative Group are encouraged to contact the CEC Secretariat.

Although public comments are welcome at any time, the formal consultative process for the *Taking Stock* reports includes:

- disseminating a discussion paper outlining options to be considered for the content and format of the upcoming report;
- obtaining input from the Consultative Group and other interested parties through organization of a public meeting and receipt of written comments; and
- preparing a response-to-comments document summarizing the comments received and outlining CEC's proposed approach in light of stakeholder input.

To ensure that public input can be fully taken into account, the consultations are conducted early in the process, prior to beginning report development.

By participating in and/or making CEC PRTR publications available at relevant meetings and conferences (including at the international, regional, national and local levels) and by channeling information through existing networks, the CEC is working to improve awareness of and access to PRTR data and information among a broader range of potentially interested individuals and groups.

Capacity Building

Support for the further development and implementation of the Mexican PRTR system has been a priority for the North American PRTR program, with a view to attaining the goal of comparable chemical-specific and facility-specific PRTR data for the entire North American region. Activities have focused on increasing the technical capacities of government and industry related to the reporting and

management of PRTR data, raising public awareness of PRTRs and access to information, and supporting relevant activities of community groups. In 2003, the focus will be on assisting Mexico in the areas of data collection and processing, data quality, and use of PRTR data to facilitate environmental improvements.

Expected Partners and/or Participants

The CEC works with the following groups and organizations in the context of the PRTR project:

- representatives of the national PRTR programs and other governmental officials;
- interested nongovernmental organizations, industry associations, companies, researchers, academics and citizens, in particular those that participate in the Consultative Group; and
- international organizations involved in PRTR-related work, e.g., OECD, UNITAR, UNEP, UN/ECE.

Linkages to other CEC Projects

PRTRs can serve as a valuable tool for gaining insight and tracking progress on a range of environmental issues. The CEC continues to explore opportunities for utilizing information from the matched North American PRTR data sets in the context of other CEC activities, including the sound management of chemicals, children's health and the environment, air quality, biodiversity, law and policy, the restructuring of the electricity industry, and state-of-the-environment reporting.

Given the commonalities between the PRTR work and the initiative under the CEC's air quality program to develop a criteria air contaminants inventory, there will continue to be close coordination and information exchange between these two projects.

The PRTR and SMOC projects are also finding increasing opportunities for linkages, particularly as the national PRTR programs add substances or lower the reporting thresholds for chemicals addressed through the SMOC program, such as dioxins/furans and mercury, thereby increasing the potential utility of PRTR as a tool for tracking progress on reducing industrial releases/transfers of these priority substances of common concern. Such linkages were the focus of discussion during the joint meeting of SMOC and the PRTR Consultative Group in October 2002.

The PRTR project will work with SMOC and the pollution prevention project on the design of a North American challenge program to foster reductions in toxic releases and transfers.

3.4.1 Capacity Building for Pollution Prevention

Project Summary

Today, it is acknowledged around the world that pollution prevention is a strategy that has proved successful in reducing industrial pollutant loads while at the same time improving productivity and competitiveness.

The CEC has been working on several projects to promote pollution prevention measures in North American industry, including determining the current state of pollution prevention activities in North America, undertaking case studies to demonstrate the advantages of pollution prevention, supporting the dissemination of information on pollution prevention, and creating sources of financing for these kinds of projects.

The purpose of this project is to complement and consolidate the initiatives undertaken to date by the CEC, by strengthening ties between the various North American stakeholders involved in pollution prevention, as well as through the consolidation of the Fund for Pollution Prevention (*Fondo de Prevención de la Contaminación—Fiprev*).

Objectives

The overall objective of this project is to foster introduction of pollution prevention initiatives in economic activities in North America and develop the necessary capacities in Mexico to spread the concept of pollution prevention, taking advantage of those existing in Canada and the US.

- Promote the use of pollution prevention techniques and technologies among small and medium-size Mexican industrial establishments and support them in the development of their environmental management capacities.
- Facilitate the application of pollution prevention measures in industry through the timely offering of technical assistance, information and financing for projects of this nature.
- Consolidate the Round Table on Pollution Prevention in Mexico.
- Strengthen the ties and joint and cooperative efforts among the pollution prevention round tables in North America.
- Explore, as appropriate, collaboration with the pollution prevention round tables as well as other relevant organizations on the implementation of the information network for pollution prevention in North America.
- Contribute to a CEC workshop to be organized by the EMS project within the Law and Policy program, on the implementation of environmental management systems in small and medium-size enterprises, to identify and draw on regional experiences and lessons learned.

- Strive to make Fiprev financially self-sustaining so that it can continue to finance projects to prevent pollutant generation by small and medium-size Mexican industrial establishments.
- Promote mechanisms to increase the Fund's financial resources and link it with the activities of the Round Table on Pollution Prevention in Mexico.

Rationale

One of the objectives of the North American Agreement on Environmental Cooperation (NAAEC), signed in 1993 by the governments of Canada, Mexico and the United States, was to promote practices and policies for the prevention of pollution. NAAEC Article 10(2) authorizes the CEC to develop recommendations regarding pollution prevention strategies and techniques necessary for compliance with the Agreement. Nevertheless the percentage of North American companies that have established pollution prevention programs is still small. To encourage these kinds of initiatives, the mechanisms of information exchange on the subject in North America need to be strengthened, and timely technical and financial assistance must be offered to small and medium-size establishments in the region.

For this purpose, the Round Table on Pollution Prevention in Mexico and its ties with its counterparts in the United States and Canada have been consolidated, to take better advantage of the experience in several sectors, the establishment of synergies and the enrichment of initiatives through the creation of ties between various organizations, institutions and companies working in this area in North America. The exchange of experience among organizations, institutions and companies further facilitates the implementation of pollution prevention initiatives in the region.

The CEC, the Mexican Foundation for Innovation and Technology Transfer in Small and Medium-size Industry (*Fundación Mexicana para la Innovación y Transferencia de Tecnología en la Pequeña y Mediana Empresa—Funtec*) and the Confederation of Industry Associations (*Confederación de Cámaras Industriales—Concamin*), created Fiprev, the purpose of which is to implement Resolution 96-12 of the CEC Council.

In Ottawa in June 2002, the CEC Council expressed its recognition and support to the North American Pollution Prevention Partnership as well as its intent to identify future work areas for pollution prevention, with particular focus on those areas where the CEC can contribute added value to pollution prevention activities proposed by the round tables.

Progress to Date

In 1995, the CEC carried out a study to determine the status of pollution prevention activities in North America. The study resulted in a series of recommended actions for the three countries, taking into account their differing economic conditions and stages of development. The study concluded that the initiatives of the institutions promoting pollution prevention were well developed in Canada, reasonably developed in the United States and just beginning to be developed in Mexico. Lack of information, technology and financing are among the primary reasons why these kinds of initiatives are not carried out.

To counter this situation, the study recommended the following:

- Promote information exchange to ensure that current activities in this area are not isolated from one another.
- Institute technical support for pollution prevention.
- Create projects that can demonstrate to business people the benefits of pollution prevention initiatives.
- Offer appropriate financing mechanisms for these projects.
- Implement industrial policies and practices that can stimulate companies to build relationships of productive linkages to incorporate principles of pollution prevention.

Since then, the CEC has been carrying out various activities based on these recommendations, most of which were consolidated in 1998. The economic and environmental benefits of implementing these kinds of measures have now been demonstrated in several studies conducted by the Commission in various branches of industry.

The CEC undertook ten pilot projects (1996–1998) to demonstrate the economic and environmental benefits of pollution prevention techniques and technologies: two in the tanning industry, one in glass production, one in paint production, two in foundries, two in synthetic resin production, one in the manufacture of wire rods and one in the production of edible vegetable oils.

In September 1996, by means of Council Resolution 96-12, the CEC created a pilot fund for pollution prevention projects in small and medium-size businesses in Mexico. The CEC provided technical support to the fund administered by Funtec. Both institutions have contributed around US\$1 million to the Fiprev fund between 1996 and 2001. Additional capital will come from other organizations by means of donations approved by the Fiprev Technical Committee.

According to the CEC's program for 2002, 30 additional loans would be granted by the end of 2002. As of November 2002, 48 loans totaling approximately US\$1.15 million have been granted. Of the financed projects, 35 are in the tanning industry and the others in food, foundries, electroplating, dry cleaning, ceramics, chemicals and metalwork. Currently, funding requests for many more projects are being studied, primarily in the areas of tanneries and electroplating.

As of November 2002, there has been 100 percent repayment of financing granted, amounting to around US\$550,000 in capital plus US\$176,000 in interest, as per the schedules of payments. The accumulated benefits of these projects include savings of 185,100 cubic meters of water and avoidance of discharges for 3,547 tons of chemicals. So far the economic savings have reached US\$1.36 million.

The fund is administered by a technical committee, which is co-chaired by Concamin's president and the CEC's Mexico City office director, and has representation from the Canadian and US Councils of International Business (CCIB and USCIB) and, ultimately, from donor institutions. Since no donor institutions have as yet contributed to the fund, at this point there are no representatives of these in the committee. This committee takes the principal decisions related to the fund.

The technical committee created an executive commission, which is directed by the Funtec's executive director and a CEC representative. This commission assists the technical committee in evaluating loan applications and projects, as well as supervising the fund's operation in general.

The fund is now in the process of being further capitalized with a contribution of more than US\$265,000 by the Mexican Ministry of Economy. In addition, Fiprev is in the process of signing a contract with Nafin to access funds from this bank, up to US\$1 million. Fiprev involves resources for more than US\$3 million.

The promotion of the Round Table on Pollution Prevention in Mexico is an effective adjunct to the activities of the CEC, in order to further the implementation of these initiatives in Mexico's production sector. Thirteen government, academic, civic and financial organizations participate on its governing board, along with approximately 100 representatives of Mexican society in its five working groups: policy, education and training, tools for pollution prevention, financing, and promotion. These working groups have ongoing activities on different topics relating to pollution prevention. With the CEC's initiative and support, the round tables on pollution prevention in Canada, Mexico and the United States are currently working together to develop a regional stance on pollution prevention policy in North America.

The round table has had five national meetings so far, most recently on 17–20 September 2002, in Guanajuato. The round table is in the process of establishing linkages with regional pollution prevention round tables within Mexico in order to enhance capacities for these initiatives in other parts of the country.

A public declaration on cooperation among the North American pollution prevention round tables was disclosed during the national meeting of the Canadian round table in Quebec in April, 2002. This declaration states that the three organizations, in partnership with the CEC, will collaborate on pollution prevention policy, capacity building, stakeholder involvement and environmental efforts leadership throughout North America. The mission of the North American Pollution Prevention Partnership (NAP3) is to advance environmental protection through pollution prevention. The goals include:

- i) advancing pollution prevention policy in each country and through the continent;
- ii) sharing information, educational and member resources; and
- iii) enhancing financial and technical resources to implement pollution prevention programs throughout North America.

The three countries met in Guanajuato during the annual meeting of the Mexican pollution prevention round table and agreed to create a

steering committee, including one representative from each national round table, one federal government representative of each country and one representative from the CEC, with alternates to be pre-identified to ensure continuity. The Steering Committee will lead the implementation of activities, with government representatives providing guidance and support and keeping Alternative Representatives abreast of developments, the round tables' representatives leading on the initiatives, and the Secretariat bringing value-added. Other stakeholders, such as industry, environmental nongovernmental organizations, other governments, academia, etc., will be invited to participate to discussions as required and their views considered in decision-making. Meetings of the NAP3 will coincide with the meetings of the round tables, and conference calls will be scheduled quarterly at a minimum, organized and facilitated by each country on a rotating basis. A first conference call took place on 26 November, organized by Canada, to flesh out the work program for 2003. The 2003 planning exercise should bring a longer vision on the work program, once the NAP3 has had a chance to assert itself as a new entity.

Actions 2003 – Overview

The actions to be taken in 2003 are geared toward complementing and consolidating the pollution prevention initiatives that the CEC has taken to date. Cooperation among the North American round table organizations on pollution prevention will continue to be promoted, and the strengthening of the Mexican round table will be supported. Regarding the Mexican round table, the diversification of the organization's sources of financing will be sought, as will the establishment of regional round tables (including on the United States-Mexico border) and partnerships among the various players in the working groups. The Mexican round table will be supported by co-sponsoring its annual meeting, as well as facilitating activities within its working groups.

With support of the CEC, the NAP3 Steering Committee will meet face to face during the national events of the round tables in each country and will hold conference calls—at least quarterly—to advance common projects for the region. The host of the first conference call in 2003 will be the US and the call is scheduled for February 11.

In collaboration with the pollution prevention round tables as well as other organizations, the NAP3 will:

- (1) implement the pollution prevention information network in North America, enhancing the existing <www.p2win.org> web site, with a focus on Canada, Mexico, and the US;
- (2) conduct at least three annual Pollution Prevention Global Information Network (P2GIN) training sessions at each of the annual round table meetings;
- (3) identify organizations that can facilitate information exchange between the three countries; and
- (4) cooperate on pollution prevention within electronics scrap activities and industries in the region. It will also help to decentralize pollution prevention in Mexico, through the creation of regional centers, and implement environmental management systems in small and medium-size enterprises.

In doing so, NAP3 will provide business owners and managers hands-on experience in implementing EMSs. The CEC workshop on this topic will be a coordinated effort of the Enforcement Working Group of the Law and Policy Program and NAP3 and will draw upon existing public and private efforts in the area.

The CEC will work with representatives from the federal and state governments, industry and nongovernmental organizations to establish linkages among regional pollution prevention round tables in Mexico and the Mexican pollution prevention round table. The initiative will develop capacities in Mexico to prevent pollution in other parts of the country, as well as to help coordinate, house and locate funding for a number of current activities, including environmental audits and environmental management systems, byproduct synergy, and hazardous waste management strategies.

Fiprev will continue to receive follow-through and support through actions to encourage and finance pollution prevention projects in small and medium-size establishments. Another relevant action will be to undertake the necessary actions to tie Fiprev to regional efforts to establish a Round Table on Pollution Prevention in North America.

2003		Estimated Resources Required (C\$)
Action 1	Collaboration among the round tables on pollution prevention in North America	30,000
Activity 1	Trinational group on pollution prevention policy in North America	30,000
Action 2	Support for the consolidation of the Round Table on Pollution Prevention in Mexico	35,000
Activity 1	Strengthen the Round Table on Pollution Prevention in Mexico	20,000
Activity 2	Establish linkages between the Round Table on Pollution Prevention in Mexico with regional round tables on pollution prevention and thereby extend the reach of the initiative	15,000
Action 3	Promotion of corporate environmental stewardship	45,000
Activity 1	Collaboration with the pollution prevention round tables as well as with other relevant organizations on the implementation of the information network for pollution prevention in North America. Sub-activities may include: <ul style="list-style-type: none"> • recruit and engage in ongoing dialogue members of the Mexican round table, P2RX and other relevant organizations on the P2WIN advisory group and the technical expertise committee; • conduct training sessions with the members of all three round tables to demonstrate the capabilities of P2WIN and the network of round tables and also receive feedback on how people can contribute; • conduct focus group sessions with those involved with making the info-sharing happen and how it can be improved; the people at the focus group sessions should represent their respective round table and know its needs and include information providers, advisory group members and technical expertise; • develop linkages with the Mexican working groups and profile their activities on the P2WIN site; • create infrastructure for sharing and collaboration on cross cutting topics; • strengthen the technical infrastructure behind the round table news exchange mechanism between Canada, Mexico and the US. Work with each round table to improve their news collection and formatting for improved access; and • build P2WIN web site to accommodate other languages by translating core components in Spanish and French 	25,000
Activity 2	Promote environmental management systems in small and medium-size enterprises in the electronics sector through, for example, industry associations and greening supply chains of large corporations	20,000
Action 4	Fiprev follow-through	7,000
Activity 1	Campaign to promote Fiprev among small and medium-size businesses through Funtec and Concamin; sponsor two meetings of the Fiprev technical committee, three meetings of the Fiprev executive commission and two meetings with potential donors; the CEC will also seek to obtain contributions to the fund from large corporations and foundations as well as to transfer CEC involvement on Fiprev to the pollution prevention round table	7,000
Total Resources Required		117,000

Public Participation

Public participation has been given ample consideration in the project, which in fact grew out of a proposal from a trinational group of experts following their analysis of a document on pollution prevention strategies. The development of case studies was facilitated by the participation of various industrial associations and business people that participated in the projects. In some cases, students from local institutions of higher education also participated, providing many of the recommendations that came out of the studies.

By its very nature, the round table project contemplates the participation of practically all sectors of society. The round tables can be reached by their own webpages and they all act through membership mechanisms that vary in each country.

The technical committee that governs Fiprev brings together members of the financial, academic and industrial sectors, and government. Additionally, the decision-making process of the executive committee brings together representatives from various sectors, including the federal and local governments, academia, bankers and businesspeople. Information on Fiprev's activities can be obtained by accessing Funtec's webpage at <www.funtec.org.mx> and/or establishing contact with its staff.

Capacity Building

The project is completely oriented toward capacity building, both in the implementation of pollution prevention measures in small and medium-size businesses as well as through the creation of financial mechanisms to support pollution prevention actions. In addition, a

new element is being incorporated at the request of the round tables on pollution prevention in Canada, Mexico and the United States, to recommend regional pollution prevention policies in order to promote and facilitate the implementation of these approaches in North American production activities.

The demonstration projects have sought to involve business people, company engineers, and in some cases, students from fields of study related to pollution prevention practices in order to train them in the identification, evaluation and implementation of these initiatives. In this way the project offers the opportunity for capacity building in situ through the principles of “learning by doing,” encouraging the ongoing practice of pollution prevention initiatives even when the consultants are no longer available.

Furthermore, the Round Tables Partnership is creating and strengthening links that facilitate the flow of information necessary for the promotion and efficient implementation of prevention practices, in addition to creating joint value-added projects.

Lastly, the operation of Fiprev improves the capacity of Mexico to promote pollution prevention initiatives by offering competitive credits for small and medium-size industrial establishments that require financial support in order to implement initiatives of this nature.

Expected Results

The following results and benefits are expected through the Mexican pollution prevention round table:

- Diversification of the organization’s sources of financing and increase of its economic self-sufficiency.
- Working groups operating on a regular basis on P2 policy, P2 implementation, education and training, tools for P2, and P2 funding.
- Webpage located within the Mexican Cleaner Production Center’s webpage, with information pertaining pollution prevention tools and contacts.
- Strengthening of capacities for pollution prevention around the country by means of the linkages between regional P2 round tables and the pollution prevention round table in Mexico.

The following results and benefits are expected through the North American Pollution Prevention Partnership:

- Strengthening of the trilateral group, including participation of government and industry.
- Initial pilot implementation in North America of the Pollution Prevention Global Information Network (P2GIN)
- Exploration of environmental management system implementation in small and medium-size enterprises in the electronics sector of North America.
- Better understanding and cooperation among North American stakeholders.

The following results and benefits are expected through the consolidation of Fiprev:

- Granting of financing to:
60 additional businesses in 2003,
80 more in 2004 and
120 more in 2005.

These actions are expected to bring the following environmental benefits:

- Reduction of water consumption by:
123,000 cubic meters during 2003,
146,000 cubic meters during 2004 and
238,000 cubic meters during 2005.
- Reduction of waste generation by:
2,700 tons during 2003,
3,200 tons during 2004 and
7,200 tons during 2005.

And approximately the following economic benefits for the businesses:

- US\$1.7 million in 2003,
- US\$2.3 million in 2004 and,
- US\$3.4 million in 2005.

Expected Partners and/or Participants

Some of the partners and participants associated with this project belong to the principal organs of Fiprev—either the Executive Committee or the Technical Committee. Representatives of the following institutions participate:

Technical Committee:

Concamin
United States Council for International Business (USCIB)
Canadian Council for International Business (CCIB)
Funtec
Universidad Nacional Autónoma de México
World Environmental Center

Executive Commission:

Instituto Politécnico Nacional
Nacional Financiera (Nafin)
Semarnat
National Bank of Foreign Trade (*Banco Nacional de Comercio Exterior*)

The Governing Board of the Round Table on Pollution Prevention in Mexico has the participation of the Mexican Center for Cleaner Production, the *Instituto Tecnológico y de Estudios Superiores de Monterrey*, the *Universidad de Guadalajara*, INE, the Federal Attorney General for Environmental Protection (*Procuraduría Federal de Protección al Ambiente—Profepa*), the Governments of Guanajuato and Querétaro, the Mexican Federation of Sanitary and Environmental Engineering, Nafin, Concamin, the *Instituto Autónomo de Investigaciones Ecológicas* and the Innova Center for Sustainable Development.

The Canadian, Mexican, and US, pollution prevention round tables, as well as the federal governments of the three countries, are also included as partners of the NAP3 initiative.

Linkages to other CEC Projects

Reduction on emissions of toxic substances such as lead in productive processes is the best way to lower risks to human health and the environment. In this way the actions in the Children's Health and the Environment in North America project as well as those in the Sound Management of Chemicals initiative are designed to consider preventative approaches such as pollution prevention. In addition, pollution prevention can improve air quality through the introduction of best available technologies.

Information on pollution prevention measures taken by industries involved in the national pollutant release and transfer registers may be included within the CEC's *Taking Stock* project, particularly now that the Mexican PRTR is being developed.

Promotion of Corporate Environmental Stewardship involves the use of several environmental tools such as environmental management systems, which in turn may foster the introduction of pollution prevention principles in order to comply with environmental law and regulations.

3.5.1 Children's Health and the Environment in North America

Project Summary

This project seeks to reduce environmental risks to children's health by facilitating collaboration among the Parties with partner institutions and interested nongovernmental groups. An important focus of the work is to foster a better understanding of the interrelationships between environmental quality and the health of children, with a view to providing a foundation for informed decision-making at all levels, including government policy makers, health and environmental professionals, parents and others concerned with the health and well-being of North American children and future generations. The priority issues for the project identified by Council include asthma and respiratory disease and the effects of lead and other toxic substances. More recently, in June 2002, Council added waterborne diseases as a priority area. Also in June 2002, Council adopted the Cooperative Agenda for Children's Health and the Environment in North America, which serves as the blueprint for action for the project.

Goals and Objectives

The overall goal of the CEC's involvement in this area is to enhance cooperation among the Parties and with other relevant organizations to improve our shared understanding and awareness of how environmental exposures can adversely affect the health and development of children, and to stimulate action to reduce and prevent effects, with the overall objective of reducing human-made pressures on children's health.

Specific objectives include:

- implementation and periodic updating of the Cooperative Agenda for Children's Health and the Environment in North America, which includes actions related to:
 - asthma and respiratory disease;
 - the effects of lead;
 - the effects of exposure to other toxic substances including pesticides;
 - strengthening the knowledge base for long-term solutions (specific topics include: children's environmental health indicators, longitudinal cohort studies, risk assessment approaches, economic valuation); and
 - public information, outreach and education;
- exploring options for addressing waterborne diseases and their impact on children;
- fostering increased interaction between agencies and organizations working on children's health issues and those involved in environmental protection efforts; and

- incorporating a children's environmental health perspective into other relevant areas of the CEC work plan.

Expected Results

The project will help raise the profile of children's environmental health issues in North America and foster collaboration among the Parties and other relevant groups to tackle issues of common concern. The project will also contribute to networking and information sharing between those who are working on environmental issues and those who are involved in health protection efforts in North America, both within and outside of government. Groundwork will also be laid for medium- to long-term efforts to improve the availability and comparability of information/data on environmental threats to children's health and their impacts.

Specific expected results in 2003 include:

- identification of options for collaborating to improve asthma surveillance in North America;
- increased policy attention and the identification of possible actions, in the context of increasing trade, to reduce the risks to children posed by consumer products containing lead;
- increased production, availability and use of lead-free pottery in Mexico;
- identification of options to address risks to children posed by contaminated water and waterborne diseases;
- greater linkages between the children's environmental health initiative and the SMOC program;
- increased collaboration among researchers in the three countries on the development of longitudinal cohort studies on children's environmental exposures and impacts;
- draft report on the economic implications of health problems in children linked to degraded environmental quality;
- increased awareness and involvement of stakeholder groups and the interested public in the CEC initiative on children's health and the environment, and children's environmental health issues more generally; and
- partnerships/cooperation with other institutions including the IJC Health Professionals Task Force, PAHO, WHO and OECD.

Rationale

The impact of environmental hazards on children's health is receiving increasing attention among scientists, policymakers and the public alike in all three North American countries. In Resolution 00-10, Council recognized that there is a growing body of scientific evidence that children are particularly vulnerable to many environmental contaminants. They endorsed the ideals affirmed in the 1997 Declaration of the Environmental Leaders of the Eight on Children's Environmental Health as well as Chapter 25 of Agenda 21 of the United Nations Conference on Environment and Development. There is an increasing and diverse body of scientific literature linking exposure to environmental contaminants with adverse impacts on children's health and development. Such exposures can occur through air, water, food, consumer products and in the places where children live, play and learn.

Ensuring a safe environment for children requires action at all levels: locally, nationally, regionally, and even globally. Given its unique position as a regional body focused on environmental issues in the context of increasing economic and social ties among the NAFTA partners, the CEC has the opportunity to play an important role in advancing issues related to children's health and the environment on a North American scale. CEC activities can also contribute to and provide leadership in the context of broader efforts, for example, the global initiative to develop indicators of children's environmental health. The CEC can contribute by facilitating and promoting the efforts of the Parties and the broad range of other actors with activities or responsibilities related to children's environmental health, by enhancing communication and sharing of expertise, and by increasing public awareness and promoting informed decision-making at all levels.

Progress to Date

Recognizing the need for greater coordination and cooperation to protect children from environmental threats in North America, in June 1999 the CEC Council announced a special initiative to explore opportunities for CEC involvement in this area. The Symposium on Children's Health and the Environment in North America, held in May 2000 in Toronto, and the follow-up government meeting, were important first steps in the process of identifying a common agenda for action among the three countries. The outcomes of the symposium and government meeting provided important groundwork for Council Resolution 00-10 on Children's Health and the Environment, which was adopted by the CEC Council during its session in Dallas, Texas, in June 2000.

In its Resolution, Council recognized that children can be particularly vulnerable to many environmental hazards in the air they breathe, the water they drink, the food they eat and the environments in which they live, learn and play, and that prevention is the most effective means of protecting children. The Council also affirmed that parents have a right to know about the presence of potentially harmful substances that may affect the health of their children. The Resolution commits the Parties to work together as partners to develop a cooperative agenda to protect children from environmental threats, with an initial focus on specific environmentally-related impairments to good health, such as asthma and other respiratory diseases, the effects of lead, including lead poisoning, and the effects of exposure to other toxic substances. The Resolution also called for the formation of an Expert Advisory Board to provide advice to Council on matters of children's health and the environment.

Following the June 2000 Council Session, a Trilateral Children's Environmental Health (CEH) Team was formed to advance implementation of Council Resolution 00-10. In 2000–2001 the CEH Team coordinated the compilation of inventories of national, bilateral and trilateral activities related to children's health and the environment as a basis for identifying gaps and opportunities for collaboration and for sharing of best practices and lessons learned. The project also provided support for the organization of a successful national workshop on children's health and the environment in Mexico, which was jointly convened by Semarnat and the Ministry of Health and which set the groundwork for a national children's environmental health agenda in Mexico.

At the June 2001 Council Session, the CEC Council issued Resolution 01-04 in which the ministers reiterated their commitment to working together to address environmental threats to children's health, welcomed the role of the Expert Advisory Board in this regard, and adopted terms of reference for the Board. The Expert Advisory Board was formed in October 2001, and held its first meeting in late November 2001 in Montreal. Their second meeting was held in Mexico City in March 2002. Members of the Expert Advisory Board also participated in the Council session in June 2002.

A main focus of the project has been to develop the Cooperative Agenda, which now serves as the blueprint for action and is intended as a "living" document that will be periodically updated to take account of evolving priorities, needs and scientific knowledge. A trilateral workshop was held in November 2001 to explore options and develop project plans, after which a draft Cooperative Agenda was compiled and circulated for public comment. The public comment period culminated with a joint public meeting between the Expert Advisory Board on Children's Health and the Environment and the Joint Public Advisory Committee (JPAC) in Mexico City in March 2002. Taking into account input received from the public, as well as advice provided by the Expert Advisory Board and JPAC, a revised version of the Cooperative Agenda was prepared and subsequently adopted by Council through Council Resolution 02-06 in June 2002.

Actions 2003 – Overview

Support for Expert Advisory Board

The Expert Advisory Board has been established for a period of two years (2001–2003), to provide advice to Council on matters concerning children's health and the environment. The project will provide for periodic teleconferences and consultant support for the work of the Expert Advisory Board, at least two Board meetings in 2003, and the participation of Board members in relevant CEC events. Support will be provided for the Board to prepare for the proposed high level meeting on the incorporation of children's environmental health concerns into the education and training of health care professionals, as mentioned in the June 2002 Council Communiqué, which aims to create a higher political profile for this issue and a strategy for moving it forward.

Asthma and respiratory disease

To advance the activities outlined in the Cooperative Agenda related to asthma and respiratory disease, the CEC Secretariat, in collaboration with the trilateral CEH Team and with input of the Expert Advisory Board, will organize an experts meeting in 2003 to explore the development of a common methodology for asthma surveillance.

Reducing children's exposures to lead

The Cooperative Agreement outlines several activities related to lead, two of which address lead in consumer products, and a third that aims to improve availability and exchange of data on blood levels. Leaded ceramics produced by cottage industries continue to be an important source of lead exposure for children in Mexico. Building on work initiated in 2002, the CEC will provide technical guidance to the government of Mexico and other stakeholders to promote a shift to lead-free pottery, drawing upon the experience of the CEC's Environmentally-preferable Goods and Services project. Projects potentially arising from this activity could be submitted to the Pollution Prevention Fund (Fiprev). In addition, the CEC and partner organizations will organize a trilateral workshop on lead in consumer products, involving agencies and institutions involved in the control of such products as well as other stakeholders, in order to assess the current situation and identify opportunities for collaboration to reduce the risks to children posed by such products. With respect to improving data on blood lead levels, the CEH Team and Expert Advisory Board will provide input into the work of SMOC in implementing the North American Regional Action Plan on Environmental Monitoring and Assessment.

Waterborne diseases

Council Resolution 02-06 directed the Secretariat, in coordination with the Parties, to develop options for collaborative action to address waterborne diseases and their impact on children. In 2003, the Secretariat and the CEH Team will explore opportunities for action to reduce the risks to children's health posed by contaminated water, in consultation with other program areas of the CEC and other relevant institutions and groups.

Collaboration on the National Children's Study

Recognizing the importance of good information on children's exposures and health outcomes as a basis for sound decision-making and preventive action, the CEC will continue to facilitate collaboration among researchers in the three countries on the development of longitudinal cohort studies on children's exposures to environmental contaminants, with the US National Children's Study as the focal point. The project will seek to ensure the involvement of Canadian and Mexican experts in the meetings of the National Children's Study, with a view to fostering the potential for trilateral collaboration in such studies. CEC's role in facilitating such collaboration will be phased out once the trilateral relationships and linkages are in place (or at the point in time when it is determined that such collaboration is not feasible).

Developing and tracking indicators of children's environmental health

Building on the results of the feasibility study completed in 2002, the CEC, in cooperation with its partners, will hire a consultant to draft the first report on indicators of children's environmental health in North America, slated for publication in 2004. The work will be guided by the informal steering group formed in 2002 involving officials from the three countries, the health professionals task force of the International Joint Commission (IJC), the Pan American Health Organization (PAHO), the World Health Organization (WHO), the Organization for Economic Cooperation and Development (OECD) and the CEC. Once developed, the indicators will be published on a periodic basis as a means of tracking progress towards the goal of improved protection of children from environmental risks.

Report on economic impacts of children's environment-related illnesses

A report on the economic impact of children's environment-related illnesses in North America will be prepared, focusing on a subset of three or four illnesses that are associated with exposures to environmental contaminants, taking into account the priority areas identified by the CEC Council and potentially including the health care and other societal/economic costs of asthma and other respiratory disease, the effects of exposure to lead and other toxic substances, and waterborne diseases.

Facilitating information exchange, increasing public awareness, and networking with other institutions

Council Resolution 00-01 called for increased sharing of scientific and research information and for the promotion of education and awareness among parents and the general public on environmental threats to children's health. In 2003, the CEC will continue its efforts to foster information exchange and raise public awareness through the CEC web site, the *Trio* newsletter and other communication tools. The CEC will also continue to build its partnerships and linkages with other groups, including international organizations such as the IJC, PAHO, WHO and OECD, as well as nongovernmental organizations (e.g., advocacy groups, academia and the private sector).

2003		Estimated Resources Required (C\$)
Action 1	Support for Expert Advisory Board	55,000
Action 2	Experts workshop on asthma surveillance	40,000
Action 3	Reducing children's exposures to lead	50,000
<i>Activity 1</i>	<i>Technical guidance to the Mexican government and relevant stakeholders to foster the production, availability and use of lead-free pottery in Mexico (in collaboration with Environmentally-preferable Goods and Services project)</i>	15,000
<i>Activity 2</i>	<i>Trilateral workshop on lead in consumer products, involving relevant agencies and stakeholders, to identify opportunities for collaboration to reduce risks to children</i>	35,000
Action 4	Waterborne diseases	5,000
Action 5	Collaboration on the National Children's Study	10,000
Action 6	Developing and tracking indicators of children's environmental health in North America: preparation of draft report	50,000
Action 7	Report on economic impacts of children's environment-related illnesses (to be supplemented by approximately C\$39,000 from US EPA)	15,000
Action 8	Facilitating information exchange, increasing public awareness, and networking with other institutions	15,000
Total Resources Required		240,000

2004	
Action 1	Asthma and respiratory disease: Follow-up actions to advance a common methodology for asthma surveillance; preparatory work for the proposed community-based pilot projects on asthma awareness and prevention
Action 2	Reducing children's exposures to lead: Actions to address cottage industries that use lead and/or consumer products which contain lead (to be determined taking into account the outcomes of activities in 2003)
Action 3	Waterborne diseases: Based on options developed in 2003, the CEC and the CEH Team will initiate targeted activities to address the health risks to children posed by contaminated water and waterborne diseases
Action 4	Tracking key indicators of children's environmental health: Finalization, editing, translation and publication of first report on North American indicators of children's environmental health
Action 5	Implementation of actions (to be determined) as follow-up to the trilateral workshop on risk assessment and children's environmental health held in February 2003
Action 6	Increasing the supply of trained children's environmental health risk assessors: Organization of visiting lecturers, cross-border exchange programs and/or training events to increase the number of people in Mexico who are trained in risk assessment methodologies that specifically address exposures and risks for children and other vulnerable groups
Action 7	Report on economic impacts of children's environment-related illnesses: Finalization, editing, translation and publication of the report, initiated in 2003, on the economic impacts of children's environment-related illnesses in North America

Action 8	Integration of risk assessment and economic valuation: Development of a simple tool/methodology to assist decision-makers with the integration of information on health care and other societal/economic costs and estimates of risk, as a means of improving decision-making
Action 9	Working with health professionals: Steps will be taken to identify and fill information needs and to share expertise among health professionals and educational institutions in the three countries, taking into account the outcomes of the Expert Advisory Board's activities in 2003
Action 10	Facilitating information exchange, increasing public awareness, and networking in order to foster linkages among groups/institutions involved in children's environmental health in the three countries, to raise public awareness of key children's environmental health concerns, and foster synergies and mutually beneficial linkages with the work of other groups/institutions
Action 11	Biannual review of the Cooperative Agenda: Organization of a public workshop to review results and obtain input from the public and interested groups on progress achieved and further development of the Cooperative Agenda. The results of the review process (progress report) and an updated Cooperative Agenda will be submitted for consideration by Council in June 2004
2005	
Action 1	Asthma and respiratory disease: Initiation of community-based pilot projects on asthma awareness and prevention
Action 2	Reducing children's exposures to lead: Continuation of activities initiated in 2004
Action 3	Waterborne diseases: Continuation of activities to address the health risks to children posed by contaminated water and waterborne diseases
Action 4	Tracking key indicators of children's environmental health: Development of second report on North American indicators of children's environmental health, to be published in 2006
Action 5	Integration of risk assessment and economic valuation: Pilot testing of the tool, developed in 2004, to assist decision-makers with the integration of information on health care and other societal/economic costs and estimates of risk
Action 6	Working with health professionals: Continuation of activities initiated in 2004
Action 7	Facilitating information exchange, increasing public awareness, and networking

Public Participation

Involving the public and other institutions/groups is an important aim of the CEC's children's environmental health initiative. This is done through organization of public meetings, circulation of draft materials for public input, dissemination of information on project activities and children's environmental health issues to the interested public and relevant groups and organizations, and development of partnerships to implement specific elements of the Cooperative Agenda. Materials developed through the project (e.g., reports, brochures) are also disseminated to potentially interested parties through existing networks and at relevant events organized by other groups and institutions. Examples of public involvement to date include the Symposium on North American Children's Health and the Environment, hosted by the CEC in May 2000, which provided for public input into the initial planning of the project. Following the development of the draft Cooperative Agenda, a public meeting was held in March 2002, jointly hosted by the Expert Advisory Board and JPAC, to obtain input from the public and interested parties on the draft. The involvement of the Expert Advisory Board in the project is another important conduit for bringing outside perspectives and exper-

tise into the work of the CEC in this area. Reaching out to parents, caregivers, educators, health care professionals and others directly involved in the health and well being of children, as well as children themselves, is another important component of public participation.

Capacity Building

The project will contribute to improvements in the protection of children's health from environmental risks by creating a forum in which the three countries can benefit from and build upon each others' experience and expertise. The collaboration on the longitudinal cohort studies and the collaborative work on indicators are two areas in which this type of mutually beneficial exchange is taking place. Selected initiatives within the Cooperative Agenda will also enhance capacities and foster the use of improved tools for decision-making, including the trilateral workshop on methodologies for children's environmental health risk assessment, and the work on estimating the economic implications of specific children's environmental health problems.

Expected Partners and/or Participants

The Council noted that governments, individuals, communities, industry, and nongovernmental environmental and health groups all have important roles to play in addressing children's health issues. In 2003, the Secretariat will continue to work with the trilateral CEH Team and the Expert Advisory Board to explore linkages and partnerships with other groups and institutions, in the context of implementing the Cooperative Agenda.

Linkages to other CEC Projects

The CEH Team and the Secretariat will continue to pursue opportunities to advance the protection of children's health through other areas of the CEC work program. Specific linkages exist in the following programs/projects:

- Sound Management of Chemicals (SMOC): incorporation of a children's health perspective into the North American Regional Action Plans on specific toxic substances and on the NARAP on environmental monitoring and assessment; collaboration on activities related to the incorporation of children into risk assessment methodologies (e.g., through the February 2003 workshop and follow-up activities);
- Air Quality: assessment of the impacts of degraded air quality at congested border crossings on the health of children and other vulnerable groups;
- Environment, Economy and Trade: collaboration with the Environmentally-preferable Goods and Services project to promote the production, availability and use of lead-free pottery in Mexico, building on the experiences gained on shade coffee; and
- Pollutant Release and Transfer Register (PRTR): tracking of carcinogens and other chemicals of concern to children's health through the annual *Taking Stock* series on pollutant releases and transfers from industrial sources.

Goal

The goal of the Law and Policy program area is to address regional priorities regarding obligations and commitments in NAAEC related to enhancement of compliance with and enforcement of environmental laws and regulations and environmental standards, enhancement of environmental performance, and the continued development and improvement of environmental law and policy. Program initiatives monitor and report on regional trends in implementing and enforcing environmental laws and standards, including innovations in regulation, economic instruments and voluntary initiatives.

Program Initiatives

Work in this area is divided into three program initiatives. The first, Environmental Standards and Performance, focuses on NAAEC objectives of strengthening regional cooperation in the development and improvement of environmental laws and regulations. This initiative is designed to strengthen cooperation in the development and continued improvement of environmental technical requirements and standards by promoting exchange of information and sharing best practices.

The second, Enforcement Cooperation, responds directly to the Parties' obligations for the effective enforcement of their respective environmental laws and regulations. In response to the Council mandate to ensure regional cooperation in enforcement matters, the program supports a regional forum of senior enforcement officials. It also addresses enforcement and compliance capacity building needs and provides information and analysis on the Parties' enforcement and compliance activities. The third, Environmental Policy, examines leading-edge policy initiatives in priority areas and shares best practices among public and private sectors.

Environmental Standards and Performance

- Comparative Report on Environmental Standards
- Environmentally Sound Management and Tracking of Hazardous Waste

Enforcement Cooperation

- Enforcement and Compliance Cooperation

Environmental Policy

- Sustainable Use and Conservation of Freshwater in North America
- Environmental Management Systems to Promote Compliance and Environmental Performance

4.1.1 Comparative Report on Environmental Standards

Project Summary

The CEC will convene a workshop of government and other experts to review the findings of the comparative report on intensive livestock operations (ILOs), also referred to as concentrated animal feeding operations (CAFOs), and prepare a report to Council on the findings and recommendations arising from the workshop.

Goals and Objectives

To strengthen cooperation on the development and continued improvement of environmental technical requirements and standards by promoting exchange of information and sharing best practices.

The objectives of this project are to:

- share best practices and approaches and identify regulatory gaps,
- prepare a comparative analysis of existing environmental standards in an area of focus for all three NAFTA Parties, and
- establish a baseline of regulatory practice from which to evaluate changes and trends in the future.

Expected Results

The workshop will identify best practices, as well as the potential for developing greater compatibility of environmental standards within the respective sovereign regulatory frameworks of each NAFTA Party.

Rationale

The Council is committed under Article 10(3) to strengthen cooperation on the development and continued improvement of environmental laws and regulations by promoting the exchange of information on criteria and methodologies used in establishing domestic environmental standards and, without reducing levels of environmental protection, by establishing a process for developing greater compatibility of environmental technical regulations, standards and conformity assessment procedures in a manner consistent with NAFTA. While NAAEC Article 3 recognizes the right of each of the Parties to establish its own level of domestic environmental protection and environmental development policies and priorities, each Party is also obligated to ensure that its laws and regulations provide for high levels of environmental protection and to strive to continue to improve those laws and regulations. The project is also tied to *A Shared Agenda for Action*, which encourages an analysis of trends in each country's performance and information-sharing in the area of environmental standards.

The CEC chose this topic because surface water, ground water and air pollution from large, confined-animal facilities has led to increased government and public scrutiny of existing controls for animal wastes. There is currently a great deal of regulatory agency activity at the state and federal levels in North America, as evidenced by the current spate of hearings and regulatory changes taking place, particularly in the United States and Canada. This issue is perceived as a serious environmental and human health threat. The trend towards increased concentration of intensive livestock operations makes an examination of this issue timely, in a rapidly evolving regulatory context. Sharing regulatory approaches with affected jurisdictions will help diffuse best practices and identify regulatory gaps.

Progress to Date

The CEC comparative study of North American laws and policies related to intensive agriculture practices commenced in 2001 and will be completed in early 2003. This report will form the basis for identifying best practices in North America. The study provides a baseline report on how selected regulatory authorities address environmental and human health concerns associated with intensive livestock operations. The CEC participated in several workshops in late 2002 to share its draft findings with and receive feedback from governmental and nongovernmental experts.

Public Participation

The workshop will be open to the participation of nongovernmental stakeholders.

Expected Partners and/or Participants

The workshop anticipates the collaboration of the appropriate government agencies of each country as well as the necessary experts or institutions both within and outside government.

Linkages to other CEC Projects

The workshop and the comparative study on intensive livestock operations relate closely to one of the NAFTA economic trends identified in project work carried out by the Environment, Economy and Trade program area.

Actions 2003 – Overview

2003		<i>Estimated Resources Required (C\$)</i>
Action 1	Intensive agriculture standards	30,000
<i>Activity 1</i>	<i>Convene workshop of government and other experts to review the findings of the comparative report on intensive agriculture standards</i>	<i>25,000</i>
<i>Activity 2</i>	<i>Prepare a report to Council on the findings/recommendations arising from the workshop</i>	<i>5,000</i>
Total Resources Required		30,000

4.1.2 Environmentally Sound Management and Tracking of Hazardous Waste

Project Summary

This project seeks to develop a common North American approach to environmentally sound management of hazardous waste and to improve the tracking of the imports and exports of hazardous waste between the NAFTA countries.

Goals and Objectives

The goals of this project are to promote the environmentally sound management of hazardous waste in North America, and to improve compliance monitoring of transboundary movements of hazardous waste among the NAFTA countries.

Expected Results

In 2003, this project will produce four results:

- Facilitate the development of a common North American approach to environmentally sound management (ESM) of hazardous waste and begin to institute a capacity building program.
- Track progress of the prototype for the electronic notification of hazardous waste shipments between the United States and Canada.
- Make recommendations on improving the tracking of hazardous waste shipments between the United States and Mexico.
- Update Trilateral Waste Code Dictionary in order to ensure that accurate information is available to those involved in compliance monitoring of transboundary hazardous waste on the regulatory status, country identification codes, and characteristics of individual hazardous waste.

Rationale

At the eighth Regular Session of Council, held in Guadalajara in June 2001, Council members agreed to initiate work in the area of environmentally sound management (ESM) of hazardous waste, recognizing the serious environmental and human health consequences of improper tracking and disposal.

In 2002, the CEC Council agreed to: continue the development of a common North American approach for environmentally sound management of hazardous waste; proceed with a pilot project to track hazardous waste movement between Canada and the United States by means of an electronic notification system; and conduct a feasibility study for a pilot project on electronic tracking of hazardous waste movements between Mexico and the United States, with particular attention to capacity building in Mexico, starting with a prioritized list of substances.

Progress to Date

In response to Council's mandate, the Secretariat, in close consultation with the government experts, created two draft reports in 2002. As a first step toward a substantive paper on ESM, the CEC has finalized a draft report summarizing the existing conditions and requirements in the three North American countries in five major areas: (1) current flow of hazardous waste and recyclables between the concerned countries; (2) application of environmentally sound management (ESM) standards to transboundary movements and domestic management of hazardous waste; (3) comparisons of regulatory requirements for managing hazardous wastes and recyclables in the three countries; (4) comparison of transportation requirements applicable to transboundary and domestic movements, as imposed by the concerned countries; and (5) revisions to existing standards.

Actions 2003 – Overview

The proposed project will have three main actions: one dedicated to the environmentally sound management of hazardous waste by analyzing major policies and regulations; the second focusing on the tracking of transboundary shipments of hazardous wastes; and the third creating a CD-ROM version of Trilateral Waste Code Dictionary, which will support the efforts of the first two activities.

2003		Estimated Resources Required (C\$)
Action 1	Environmentally sound management (ESM) of hazardous waste	85,000
Activity 1	Prepare a substantive paper on the North American approach to ESM, based on the comparative analysis of hazardous waste requirements, and report to the CEC Council	20,000
Activity 2	Convene a meeting of the task force and policy and technical experts	30,000
Activity 3	Prepare a capacity building pilot project	35,000
Action 2	Transboundary movement of hazardous waste	148,000
Activity 1	Facilitate the pilot project to track hazardous waste movements between Canada and the United States by means of electronic notification system and proceed with feasibility study for a pilot project on electronic tracking of hazardous waste movements between the United States and Mexico	80,000
Activity 2	Coordinate with OECD, Basel, and EU efforts to improve tracking of hazardous wastes and coordinate with UN international standards group	15,000
Activity 3	Convene a task force meeting with government Customs experts to coordinate efforts among the NAFTA environmental and customs agencies to: (1) identify issues and efforts that impact on CEC efforts to improve tracking of transboundary hazardous waste; (2) identify priority areas; and (3) make recommendations for areas where additional analysis and continued coordination is required	20,000
Activity 4	Convene a meeting/workshop of the task force and nongovernmental stakeholders to: (1) report on the 2002 CEC analysis and the North American business model, as well as the trilateral hazardous waste dictionary; (2) discuss goals and next steps in implementing recommendations for electronic reporting of transboundary hazardous waste reports; and (3) explore appropriate venues for participation by nongovernmental stakeholders, such as piloting electronic reporting	30,000
Activity 5	Report to the CEC Council on the results of the analysis and recommended next steps	3,000
Action 3	Trilateral hazardous waste code dictionary	45,000
Activity 1	Update of Trilateral Waste Code Dictionary, available in CD-ROM format, which cross-references the regulatory status, the country identification codes, and the characteristics of individual hazardous wastes	45,000
Total Resources Required		278,000

2004	
Action 1	Environmentally sound management of hazardous waste
Activity 1	Reach agreement on which elements will be included in the North American ESM system and begin pilot implementation of that system
Activity 2	Begin pilot implementation of a few of the recommendations for capacity building
Activity 3	Produce a report to Council, providing recommendations on a North American approach to ESM and discussing ESM capacity-building successes
Action 2	Transboundary movement of hazardous waste
Activity 1	Continue implementation of recommendations for electronic reporting of transboundary hazardous waste reports
Activity 2	Coordinate with international fora on ongoing international efforts to improve tracking of hazardous waste
Activity 3	Coordinate with Customs agencies on integrating and improving tracking capabilities
Activity 4	Evaluate progress and report to Council with recommendations on future work

Action 3	Trinational hazardous waste code dictionary Feasibility study for integrating information into databases of environmental agencies and Customs agencies
2005	
Action 1	Environmentally sound management of hazardous waste Continue implementation of ESM system, including the capacity building component
Action 2	Transboundary movement of hazardous waste Follow up on the implementation of the recommendations
Action 3	Trinational hazardous waste code dictionary Follow up on feasibility study

CEC efforts related to the tracking of hazardous waste movements among NAFTA countries began in 1997 when the EWG initiated the preparation of a report on the challenges of monitoring transboundary shipments of hazardous waste and enforcing hazardous waste regulations in the NAFTA era. Results of this report indicated, among other findings, that paper-based tracking systems were unable to track shipments from “cradle to grave” when the cradle was in one country and the grave in another. As well, it showed that quality, quantity and timing of these tracking systems were deficient with respect to supporting enforcement activities. Building upon the findings of this report, and in response to the 2002 Council mandate, the CEC has drafted a report that addresses the documentation and evaluation of information-related requirements and systems involved with hazardous waste import/export between the three North American countries, and identified options for automating and improving processes.

Expected Partners and/or Participants

Government experts from the environmental protection agencies at the federal, state and local levels, the Customs agencies, industry and nongovernmental agencies will be involved. In addition, task forces will consult with the Organization for Economic Cooperation and Development, the United Nations and the European Union to explore possible avenues of cooperation.

Public Participation

The task force will have at least one public workshop to discuss options and alternatives with key stakeholders.

Linkages to other CEC Projects

This project builds upon the work of the Enforcement Work Group. In addition, it is expected that some of the technical experts that will participate in the meetings and workshops will include members of other CEC projects, such as SMOC, Transportation Corridors, and Pollution Prevention.

4.2.1 Enforcement and Compliance Cooperation

Project Summary

The Enforcement and Compliance Cooperation Program provides ongoing support to the North American Working Group on Enforcement and Compliance Cooperation (EWG) in examining issues related to shared enforcement and compliance challenges. The program addresses North American regional enforcement issues, enforcement and compliance capacity building issues, and provides in-depth information and analysis on the Parties, enforcement and compliance promotion activities.

Goals and Objectives

To improve the effectiveness of shared environmental enforcement and compliance activities in North America and to increase the public's understanding of North American environmental enforcement issues.

Results

The Enforcement and Compliance Cooperation Program contributes to improvements in environmental compliance in North America by prioritizing areas of shared concern, developing linkages among law enforcement agencies and organizations, designing and delivering capacity-building initiatives, and reporting on enforcement and compliance activities and issues. Specific results include:

- examining the known trade and tracking mechanisms for persistent organic pollutants and mercury to determine possible compliance issues associated with the trade in these substances;
- identifying important issues in the illegal trade and traffic in protected plant and wildlife in North America and helping enforcement officials identify enforcement and compliance issues associated with this trade; and
- helping ensure that a NAFTA country's border is not used as a shield to liability by a company or entity operating in another country.

Rationale

This program area responds directly to the Parties' NAAEC Article 5 obligation of effective enforcement and the Council's NAAEC Article 10(4) obligation to foster technical cooperation to this end. Cooperative work on regulatory enforcement issues is carried out with the collaboration and guidance of the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG). The EWG was established under Council Resolution 96-06, and is composed of senior-level environmental enforcement officials ap-

pointed by the Parties. The EWG also includes in its membership the North American Wildlife Enforcement Group (NAWEG), a regional network of wildlife enforcement officials.

This program also fits into the broad objectives of NAAEC to promote transparency and public participation in the development of environmental laws, regulations and policies. Information is an essential pre-condition for meaningful public participation, and in this sense EWG reports help fulfill the Parties' commitments to promote education in environmental law, in this case, its application by the Parties. It responds to the Article 5 obligation to issue bulletins or other periodic statements on enforcement procedures and is tied to the commitment in *A Shared Agenda for Action* to share information on environmental standards, enforcement, compliance and performance.

Progress to Date

Since 1995, the CEC has provided support for meetings and communications among the members of the EWG, NAWEG and related task groups. The networks have spawned a series of additional task groups initiating cooperative work on issues of priority regional concern, including transboundary hazardous waste, environmental management systems (EMSs) and other voluntary approaches to compliance, and enforcement of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In 2002, NAWEG held a Trilateral Conference on searching for better avenues for public participation in wildlife enforcement activities. One goal of the conference was to develop recommendations for building partnerships between agencies and the public.

In the area of capacity building, the Enforcement Cooperation program, under the guidance of the EWG and NAWEG, has concentrated in the following areas:

- CITES tracking and enforcement. Since 1995, five regional training programs have been delivered to enforcement officials on critical areas of trade in endangered species of birds (1996), furbearing mammals (1996), reptiles (1997), coral and marine invertebrates (1998) and trophy hunting and game farming species (2000).
- Wildlife forensics. In 1997, the CEC, in cooperation with NAWEG, the US National Fish and Wildlife Forensics Laboratory, and the *Universidad Nacional Autónoma de México*, sponsored a seminar for enforcement officials and forensics authorities of the three countries on forensic techniques, DNA identification techniques, crime scene investigation, necropsy issues, species identification and medicinal trade issues. In 1999, the CEC, in cooperation with NAWEG and the Northwest Association of Forensic

Scientists, sponsored a series of workshops on new techniques and developments in forensics. NAWEG, with funding from the CEC, developed a directory of North American forensics experts, which will help rationalize and better share expertise in this area among all three Parties.

- Wildlife Training exchanges. In 1998, 1999 and 2001, the CEC provided support for training exchanges. Under those joint initiatives, subsidies were provided for the exchange of wildlife enforcement officials to facilitate the sharing of training information and techniques among the agencies. In addition, support was given to meetings of the NAWEG Inspection Task Group towards development of a long-term joint or cost-shared inspector training.
- Smuggling of Ozone-depleting Substances. In 2001 and 2002, the CEC, in cooperation with the responsible agencies of the three countries, UNEP and representatives of the industry in Mexico, sponsored a two-day workshop on enforcement issues related to the illegal traffic of ODSs in North America. Since 1996 the EWG has identified the need for cooperation in improving the capacity to track and enforce laws regulating the transboundary movement of ODSs. All three NAFTA Parties are signatories to the Montreal Protocol on Substances that Deplete the Ozone Layer. Both the United States and Canada have already imposed severe limitations on the production and importation of many types of ODSs and Mexico is seeking to impose similar restrictions on CFC-12 and other ozone-depleting substances. However, some restricted ODSs (such as CFC-12, or “Freon,” which is used as a refrigerant in air conditioners) are still in high demand in North America. As a result, a thriving illegal trade in these substances exists. Joint training not only builds enforcement capacity but serves as a foundation to build an enforcement network for continuing cooperation and opens the door to future collaboration with UNEP in a broader network involving Central and South American countries.

- Transboundary Law Enforcement Cooperation Workshop. In 2001, the EWG identified the need for capacity building on issues associated with the transboundary enforcement of environmental laws. Transboundary enforcement is the enforcement of environmental laws in one country that may require the assistance of another country either in the form of mutual legal cooperation, or the voluntary exchange of information or assistance. Transboundary enforcement cooperation is necessary to ensure that a company in one NAFTA country does not evade environmental requirements in another NAFTA country by using the border as a shield to liability. In early 2003, the CEC will host a workshop which will help identify legal issues associated with the transboundary enforcement of environmental laws and legal gaps which may impede transboundary enforcement cooperation.

In regard to enforcement and compliance reporting, in 2002, the EWG, working with NAWEG, prepared a report based on issues raised in the enforcement of wildlife laws in North America. The EWG and NAWEG coordinated the preparation of the 1995, 1996, 1997, 1998 and 1999 annual reports by the Parties on their enforcement-related obligations. The 1995 report provided an overview of the policy, programs and strategies of the three countries to serve as a baseline for future reports. In 2000, in response to public demand for greater information on enforcement activities in the three countries, the EWG produced a special enforcement report dealing with three topics: inspections, compliance promotion and measurement of program results. This report was distributed to the public in 2001 through printed copies and by posting it on the CEC web site.

Actions 2003 – Overview

2003		Estimated Resources Required (C\$)
Action 1	Regional enforcement network	45,000
Activity 1	Organize a public meeting between the EWG and JPAC in order to receive public input on EWG and Law and Policy Activities	10,000
Activity 2	Organize adjunct meetings of the EWG to provide guidance on Enforcement and Cooperation program	25,000
Activity 3	Foster an interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws	5,000
Activity 4	Further outreach to other regional and international networks; EWG outreach to provincial/state agencies; NAWEG outreach to other agencies (marine, parks, including state/provincial agencies) as well as Interpol and World Customs Organization	5,000

Action 2	Help build wildlife and CITES tracking and enforcement capacity		75,000
Activity 1	Organize a workshop on the use and sharing of intelligence knowledge to increase the effectiveness of operational actions. Results will be a common understanding of the activity and creation of a network of intelligence offices within the three countries	50,000	
Activity 2	Offer ongoing support to wildlife enforcement training network and partnership	10,000	
Activity 3	Collaborate with CEC projects on invasive species and assess the need for a specific enforcement workshop on the issue	10,000	
Activity 4	Follow-up work for the 2002 seminar on protected plant species	5,000	
Action 3	Help build pollution control tracking and enforcement capacity		73,000
Activity 1	Sponsor a workshop to follow up on recommendations of transboundary enforcement workshop and to identify potential sources of support and exchange of enforcement information and intelligence	60,000	
Activity 2	Prepare a report to Council on tracking and reporting mechanisms for transboundary shipments	5,000	
Activity 3	Prepare a report on the known trade in persistent organic pollutants (as listed under the Stockholm Convention) between Mexico, the United States and Canada	8,000	
Action 4	The CEC will publish and make available to the public a report on wildlife enforcement issues finished in 2002		15,000
Action 5	Promote public outreach through (a) consultations with JPAC, NACs and other groups; (b) contribution to the CEC electronic newsletter, <i>Trio</i> ; (c) distribution of related reports to public		5,000
Total Resources Required			213,000
2004–2005			
<i>Actions in 2004 and 2005 will be developed in coordination with the development of an EWG strategic plan</i>			

Public Participation

The EWG and JPAC will hold a public meeting in 2003 in order to receive public input on EWG activities and help craft strategic priorities for North American enforcement. The Transboundary Enforcement Workshop will have public participation from key stakeholders.

Expected Partners and/or Participants

Important partners include domestic and international organizations, both governmental and nongovernmental, with an interest in the issues addressed.

Linkages to other CEC Projects

The work of all CEC projects in the Enforcement Cooperation program is conducted under the guidance of the EWG. There are ongoing linkages with the Phase II Task Force on the North American Regional Action Plan on mercury and SMOC work on persistent organic pollutants.

NAWEG activities overlap with those on invasive species organized by the Conservation of Biodiversity program. NAWEG will pursue this collaboration in its own initiative on invasive species in 2003.

4.3.1 Sustainable Use and Conservation of Freshwater in North America

Project Summary

At the Eighth Regular Session of Council, held in Guadalajara in June 2001, Council members agreed to initiate work in the area of sustainable watershed management in the region, including consideration of affordable water-related technologies and water pricing. During 2002, the Secretariat worked with interested stakeholders in developing possible options for the Council to consider in implementing work in this area. These options should be presented to the Council in 2003 so that they can give further direction to the Secretariat regarding the goals, objectives and next steps of this project in 2004. While finalizing these options in 2003, the Secretariat will compile a list of databases of principal governmental and international agencies involved with ground and surface water in North America and the available geospatial and mapping information on the topic.

Goals and Objectives

The goal of this year's work is to ensure that the Secretariat provides the Council with a paper that has received extensive stakeholder input and that outlines possible next steps for CEC work in the area of sustainable watershed management, affordable water-related technologies and water pricing. The goal is also to ensure that the Commission, the governments and the public have access to public information on a North American basis which supports this effort.

Rationale

The developments of an options paper with extensive stakeholder involvement is necessary to ensure that the CEC does not duplicate ongoing work elsewhere and that it adds value to other such initiatives. In addition, compiling information on ground and surface water in North America will help better inform ongoing and future CEC projects and provide access to public information on a North American basis.

Progress to Date

In 2002, the CEC convened a workshop, with leading water policy experts from government, academia, industry and nongovernmental organizations attending, to identify key policy options for sustainable watershed management, including consideration of affordable technologies and pricing. In addition, JPAC held a public workshop on freshwater issues in North America in order to comment on the draft options paper and to provide advice to the Council on the development of these options and on a long-term vision of the role of the CEC in this area.

Expected Results

Future work will be based on those options that Council identifies for continuing CEC efforts in this area.

Actions 2003 – Overview

2003		Estimated Resources Required (C\$)
Action 1	Sustainable Use and Conservation of Freshwater in North America	25,000
<i>Activity 1</i>	<i>Compile a list of databases of principal governmental and international agencies involved with ground and surface water in North America and the available geospatial and mapping information on the subject</i>	25,000
Total Resources Required		25,000

4.3.2 Environmental Management Systems to Promote Compliance and Environmental Performance

Project Summary

The CEC will sponsor a workshop focused on the hands-on experience of small and medium-size business owners and managers in implementing environmental management systems (EMSs). This project will be a coordinated effort of the Enforcement Working Group of the Law and Policy program and the North American Pollution Prevention Partnership (NAP3) and will draw upon existing public and private efforts in this area. The project responds to Council's recognition that public-private partnership, which includes governments at the national, state/provincial and local levels, is the best way to promote the widespread adoption of pollution prevention and the use of environmental management systems. It also furthers work resulting from the Council direction to the Enforcement Working Group in 1997 "to explore

- (1) the relationship between the ISO 14000 series and other voluntary environmental management systems (EMSs) to government programs to enforce, verify, and promote compliance with environmental laws and regulations, and
- (2) opportunities to exchange information and develop cooperative positions regarding the role and effect of EMSs on compliance and other environmental performance."

Goals and Objectives

The goal of this project is to evaluate the use of EMSs by the private sector as a means of achieving public policy goals of improving environmental performance and compliance in both regulated and non-regulated areas.

The objectives include:

- support to the cooperative evaluation of the effectiveness of EMSs in enhancing pollution prevention and overall environmental performance and compliance, including the exploration of pilot projects; and
- follow-up to the issuance of the guidance document *Improving Environmental Performance and Compliance: 10 Elements of Effective Environmental Management Systems*.

Expected Results

The project will publish workshop proceedings that will include a discussion of the "best practices" identified by the workshop participants.

Rationale

This project area was initiated in response to the expanding interest in implementation of various EMSs. Private voluntary standards or initiatives, such as the ISO 14000 series and Responsible Care, promote the implementation of EMSs. At the same time, governments are experimenting with the use of EMSs in voluntary compliance and enforcement programs, such as various voluntary pilot programs in the United States, and the inclusion of requirements for EMSs in court orders that resolve enforcement matters in Canada. However, substantial work is needed to evaluate the effectiveness of different EMS models in achieving the goals of improved environmental compliance and environmental performance, and in sharing information and ideas about the potential role of EMSs in government policies and programs designed to enforce environmental requirements or promote improved compliance and performance. The project is also intended to support national initiatives for pilot studies of EMS use by industry or government operations, to assess the relative value of such systems as compliance triggers, and to exchange information on the results of these experiences.

Progress to Date

The CEC has supported a joint initiative for a regional policy on EMSs and compliance, reflected in Council Resolution 97-05 on "Future Cooperation regarding Environmental Management Systems and Compliance" and the related report to Council from the EWG in 1998. In 1999, a public forum involving participants from industry, government and nongovernmental groups was held in Washington, DC, to explore core EMS elements needed to promote compliance and environmental performance in both regulated and nonregulated areas. Proceedings of this meeting were published and distributed in 2000. In 2000, in cooperation with JPAC, the EWG members also successfully collaborated to produce a guidance document, entitled *Improving Environmental Performance and Compliance: 10 Elements of Effective Environmental Management Systems*. This document was endorsed by Council Resolution 00-05. In 2002, the countries prepared a report to Council on the guidance document's implementation.

Actions 2003 – Overview

2003		<i>Estimated Resources Required (C\$)</i>
Action 1	Form an organizing committee which will include representatives or designees of the Trilateral Group on Pollution Prevention in North America and the Enforcement Working Group. The organizing committee will develop a conference agenda, an invitation list, a list of available technical assistance in the three countries, and a framework for identifying and drawing on regional experiences and lessons learned in the implementation of environmental management systems in small and medium-size businesses	5,000
Action 2	Sponsor a conference on environmental management systems in small and medium-size business	50,000
Action 3	Publish and disseminate workshop proceedings	15,000
Total Resources Required		70,000

Public Participation

Business and industry groups, academia and nongovernmental groups will be invited to participate in the workshop.

Expected Partners and/or Participants

The organizing committee will work with the pollution prevention round tables, various government agencies and departments, industry and trade groups and the public in evaluating the use of EMSs by the private sector as a means of achieving public policy goals of improving environmental performance and compliance in both regulated and non-regulated areas.

Linkages to other CEC Projects

This project is a continuation of work begun in 1997 and builds on the project results of previous years.

Other Initiatives of the CEC

This section includes information on activities of the CEC that are either mandated by NAAEC, as in the case of Specific Obligations Under the Agreement (SOUN) and the Joint Public Advisory Committee, or that stem directly from decisions taken by the Ministers, such as the creation of the North American Fund for Environmental Cooperation (NAFEC).

The Joint Public Advisory Committee (JPAC)

The Joint Public Advisory Committee (JPAC) is one of the constituent bodies of the CEC, along with the Council and the Secretariat. As a group of fifteen volunteer citizens, five from each country, JPAC recognizes that in one respect it functions as a microcosm of the public: independent individuals who contribute diverse institutional environmental experience and cultural perspectives. JPAC may provide advice to the Council on any matter within the scope of NAAEC.

In another respect, as it represents the North American community-at-large (not one country in particular), one of its important obligations is to ensure that public input and concerns are taken into account when formulating its advice to Council.

JPAC's vision is to promote continental cooperation in ecosystem protection and sustainable economic development, and to ensure transparency and active public participation in the actions of the CEC. The members share a commitment to preserve and enhance the North American environment and to achieve a sustainable society.

NAFTA Chapter 11

Given the level of interest expressed by the participants who attended the JPAC public meeting on NAFTA Chapter 11 held in June 2002, JPAC will organize a second public meeting on this issue in conjunction with the CEC symposium on the environmental effects of trade, scheduled for March 2003. In this spirit, JPAC will continue to follow the efforts of trade and environment officials to implement NAAEC Article 10(6) and to continue encouraging the Council to fulfill its obligations to "cooperate with the NAFTA Free Trade Commission to achieve the environmental goals and objectives of NAFTA."

Tenth Anniversary of NAFTA and NAAEC

In 2003, JPAC will be very pleased to collaborate with the Council in a retrospective study of the achievements of NAFTA and NAAEC over the past ten years, and will work with the Council to ensure broad public participation.

Air Quality, Enforcement Cooperation, Conservation of Biodiversity Issues, NAAEC Article 13 Reports and Other Matters

Throughout the year, it is expected that JPAC will focus its main activities around the areas of air quality, enforcement cooperation and conservation of biodiversity issues. JPAC will also encourage progress on recommendations and conclusions stemming from the reports prepared under NAAEC Article 13 on the North American electricity market and on the impacts of transgenic corn on traditional varieties of maize in Mexico.

Moreover, JPAC will continue to follow some CEC projects undertaken in 2002—for example, Children's Health and the Environment in North America, the Sound Management of Chemicals—and project initiatives such as freshwater issues in North America and private sector financing of sustainability.

In addition, it is planned that representatives from JPAC or its working groups will attend CEC public meetings on these issues and otherwise interact with CEC programs, placing particular attention on how better to engage and involve the North American public in these areas.

Articles 14 and 15 of NAAEC

Finally, JPAC will continue to monitor and provide advice to Council on matters related to Articles 14 and 15 of the Agreement.

In 2003, as mandated by Council Resolution 00-09, JPAC plans to conduct a public review on the matter of limiting the scope of factual records, and participate in the review of the operation of this Council Resolution.

Administrative Matters

The annual joint meeting between the Council and JPAC, in conjunction with the June Regular Session of Council, and joint meetings with the Alternate Representatives provide further opportunities to advise Council on strategic directions for the CEC, the Program Plan, and budgetary allocations.

Moreover, JPAC will continue to encourage mutual exchanges with the National and Governmental Advisory Committees on issues related to CEC and, in the process, receive more direct feedback on matters of importance in each NAFTA country. This will be included, together with public input, in advice to Council.

This direct involvement also permits JPAC to be proactive and address public concerns within the CEC, as well as receive public input on selected program and administrative topics at each of its meetings for inclusion in appropriate advice to Council.

Actions 2003 – Overview

2003		Estimated Resources Required (C\$)
Action 1	In conjunction with the Second North American Symposium on Assessing the Environmental Effects of Trade, hold a JPAC public workshop on NAFTA Chapter 11, and JPAC regular session 03-01	95,000
Action 2	In conjunction with the 10th Regular Session of Council, hold a joint plenary session with the North American Enforcement Working Group on the CEC's Enforcement and Compliance Cooperation program, a JPAC public workshop on the 10-year assessment of the environmental effects of the North American Free Trade Agreement (NAFTA) and the NAAEC, and JPAC regular session 03-02	95,000
Action 3	Hold a joint public workshop with the Conservation of Biodiversity program on Closing the Pathways of Aquatic Invasive Species across North America, a plenary session on the proposed Program Plan and Budget for 2004–2006, and JPAC regular session 03-03	95,000
Action 4	Hold JPAC regular session 03-04 in conjunction with the NAAEC Article 13 Initiative on Maize and Biodiversity: The Effects of Transgenic Maize in Mexico	95,000
Action 5	Expenses incurred by the JPAC chair, working groups, and staff travel	20,000
Total Resources Required *		400,000

* This budget forecast excludes expenses that could be incurred as a result of a future Council decision to entrust specific additional mandates to JPAC.

North American Fund for Environmental Cooperation (NAFEC)

The Commission for Environmental Cooperation (CEC) created the North American Fund for Environmental Cooperation (NAFEC) in 1995 as a means to fund community-based projects in Canada, Mexico and the United States that promote the goals and objectives of the CEC.

To maximize the impact of NAFEC's limited resources, proposals are encouraged for projects that not only have concrete results at the local level but also have an impact on a wider scale. NAFEC seeks innovative and replicable projects with outcomes that can be shared throughout North America, as well as projects that explore the relationship between government policy and community-based efforts. NAFEC facilitates interaction among grantees and between grantees and the CEC in order to promote exchange and collective analysis. In addition, NAFEC funds projects that leverage additional support but which are unlikely to obtain full funding from other sources.

Over the past years and following an evaluation carried out in 2000, a wide variety of impacts from NAFEC funding have been reported. These indicate that NAFEC: supports capacity building among community groups, provides a public constituency that informs policy-level programming at the CEC, promotes direct and indirect public participation within the CEC by encouraging grantees to take an active role in JPAC and other CEC processes, and creates a natural information clearinghouse to fill a North American-focused information-distribution gap.

Currently, most of the NAFEC's impacts are related to the program areas in Environment, Economy and Trade (specifically in Green Goods and Services) and the Conservation of Biodiversity. Results range from organic certification for Mexican coffee growers to new conservation legislation on Important Bird Areas. NAFEC has also made a major contribution to the development of transboundary networks. In fact, NAFEC's niche allows it to support NGOs to work across borders on shared environmental issues and reinforce NAAEC objectives.

Moreover, the majority of the grantees have successfully used NAFEC funds to leverage additional monies in order to sustain their NAFEC work.

To date, NAFEC has awarded 176 grants, totaling US\$6.22 million.

In 2002, the NAFEC Administration and Funding Guidelines have been reviewed following a JPAC Advice, in order to make them more consistent with the present situation of NAFEC.

In 2003–2005, NAFEC will continue to:

- support community-based projects;
- emphasize sustainability; link environmental, social and economic issues;
- emphasize aspects of capacity building and the development of partnerships across borders and sectors;
- respond to a specific issue or problem and yield concrete results;
- issue a focused Call for Proposals linked to one or more CEC projects and link the results of NAFEC-supported projects to other aspects of the CEC's work program;
- emphasize public participation within CEC processes and others of regional relevance;
- broadly disseminate information about NAFEC and NAFEC-supported projects; and
- continue to strengthen the networking and information exchange function of NAFEC.

The 2003 NAFEC Call for Proposals will focus on environmental monitoring and assessment related to human health. Specifically, projects for 2003 must strengthen the capacity of citizens and communities to monitor aspects of their environments that affect their own health. Monitoring activities should lead to increased citizen participation in decision-making and/or in designing and implementing local solutions to environmental problems. Ideally, monitoring approaches will incorporate local/traditional and scientific knowledge; link human and ecosystem health; and encourage the development or implementation of policies that support citizen monitoring and the public's right-to-know. The Call for Proposals will be released in early 2003 with a deadline of 31 March.

During 2003, NAFEC will again operate with a reduced budget. Approximately C\$755,000 will be available for grants to community-based projects.

2003	<i>Estimated Resources Required (C\$)</i>
Total Resources Required	
755,000	

Specific Obligations under the Agreement (SOUN)

In addition to the actions and initiatives described in this three-year program plan, the CEC will continue to support the specific obligations under the North American Agreement on Environmental Cooperation. This includes:

2003	<i>Estimated Resources Required (C\$)</i>
Article 10(5)(a) CEC Resource Centre <i>Acquisition of periodicals and monographs, online services, network, web and programming support, training, web hosting, software updates</i>	150,000
Article 10(6) Cooperation with the NAFTA Free Trade Commission <i>To support the meetings, preparatory work and actions of the Article 10(6) working group</i>	20,000
Article 10(7) Transboundary Environmental Impact Assessment <i>Assist the Parties with actions identified to advance TEIA implementation in North America</i>	10,000
Article 11(6) 2003–2005 Program Plan and Budget <i>Prepare, translate, print and distribute the Program Plan and Budget</i>	60,000
Article 12(1) 2000 Annual Report <i>Prepare, translate, print and distribute the 2000 Annual Report</i>	30,000
Article 12(3) 2002 State of the Environment Report <i>Prepare the SOE report, for publication in 2003, including development of environmental indicators and preparation of a special chapter on freshwater resources</i>	100,000
Article 13 Secretariat Reports <i>Complete, translate and publish the Article 13 report on maize, including submittal of final report to Parties</i>	465,000
Articles 14-15 Submissions on Enforcement Matters <i>Analysis, processing and translations related to submissions, based on current workload and projected estimates of three to four new submissions, four to five current factual records ongoing, and three to five new factual records</i>	600,000
Total Resources Required	1,435,000

The CEC budget consists of the following categories:

Program implementation

- Project costs, including costs of publications and related salaries.

Secretariat operations

- Costs related to the operation of the Commission.

Other initiatives

- Costs of activities of the CEC that are either mandated by NAAEC—as in the case of Specific Obligations under the Agreement (SOUN), Council activities, and the Joint Public Advisory Committee—or that stem directly from decisions taken by the Ministers, such as the creation of the North American Fund for Environmental Cooperation (NAFEC).

2003 Project Budget Summary

I – Environment, Economy and Trade

Estimated Resources Required (C\$)

Understanding Linkages between Environment, Economy and Trade

1.1.1 Assessing the Environmental Effects of Trade

<i>Cooperative and partnership agreements, professional fees</i>	245,000
<i>Travel, accommodation, interpretation and meetings expenses</i>	135,000
<i>Translation, publication and distribution costs</i>	80,000
<i>Other expenses</i>	-
Total	460,000

Market-based Mechanisms for Environmentally-preferable Goods and Services

1.2.1 Trade in Environmentally-preferable Goods and Services

<i>Cooperative and partnership agreements, professional fees</i>	250,000
<i>Travel, accommodation, interpretation and meetings expenses</i>	100,000
<i>Translation, publication and distribution costs</i>	50,000
<i>Other expenses</i>	-
Total	400,000

1.2.2 Financing in Support of Environmental Protection and Conservation

<i>Cooperative and partnership agreements, professional fees</i>	135,000
<i>Travel, accommodation, interpretation and meetings expenses</i>	40,000
<i>Translation, publication and distribution costs</i>	20,000
<i>Other expenses</i>	-
Total	195,000

II – Conservation of Biodiversity

North American Biodiversity Conservation Strategies

2.1.1 Strategic and Cooperative Action for the Conservation of Biodiversity in North America

<i>Cooperative and partnership agreements, professional fees</i>	7,500
<i>Travel, accommodation, interpretation and meetings expenses</i>	25,000
<i>Translation, publication and distribution costs</i>	22,500
<i>Other expenses</i>	-
Total	55,000

II – Conservation of Biodiversity

Estimated Resources Required (C\$)

Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

2.2.1	North American Bird Conservation Initiative	
	<i>Cooperative and partnership agreements, professional fees</i>	160,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	20,000
	<i>Translation, publication and distribution costs</i>	20,000
	<i>Other expenses</i>	-
	Total	200,000
2.2.2	Terrestrial Species of Common Conservation Concern	
	<i>Cooperative and partnership agreements, professional fees</i>	45,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	5,000
	<i>Translation, publication and distribution costs</i>	30,000
	<i>Other expenses</i>	-
	Total	80,000
2.2.3	Marine Species of Common Conservation Concern	
	<i>Cooperative and partnership agreements, professional fees</i>	55,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	75,000
	<i>Translation, publication and distribution costs</i>	5,000
	<i>Other expenses</i>	5,000
	Total	140,000
2.2.4	North American Marine Protected Areas Network	
	<i>Cooperative and partnership agreements, professional fees</i>	88,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	105,000
	<i>Translation, publication and distribution costs</i>	5,000
	<i>Other expenses</i>	7,000
	Total	205,000
2.2.5	Closing the Pathways of Aquatic Invasive Species across North America	
	<i>Cooperative and partnership agreements, professional fees</i>	65,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	15,000
	<i>Translation, publication and distribution costs</i>	10,000
	<i>Other expenses</i>	-
	Total	90,000

Improving Information on North American Biodiversity

2.3.1	North American Biodiversity Information Network	
	<i>Cooperative and partnership agreements, professional fees</i>	70,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	32,000
	<i>Translation, publication and distribution costs</i>	-
	<i>Other expenses</i>	15,000
	Total	117,000

III – Pollutants and Health

Estimated Resources Required (C\$)

Cooperation on North American Air Quality Issues

3.1.1	Cooperation on North American Air Quality Issues	
	<i>Cooperative and partnership agreements, professional fees</i>	305,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	209,000
	<i>Translation, publication and distribution costs</i>	75,000
	<i>Other expenses</i>	-
	Total	589,000

Sound Management of Chemicals

3.2.1	Sound Management of Chemicals	
	<i>Cooperative and partnership agreements, professional fees</i>	460,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	287,000
	<i>Translation, publication and distribution costs</i>	90,000
	<i>Other expenses</i>	-
	Total	837,000

North American Pollutant Release and Transfer Register

3.3.1	North American Pollutant Release and Transfer Register	
	<i>Cooperative and partnership agreements, professional fees</i>	203,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	67,000
	<i>Translation, publication and distribution costs</i>	175,000
	<i>Other expenses</i>	-
	Total	445,000

Pollution Prevention

3.4.1	Capacity Building for Pollution Prevention	
	<i>Cooperative and partnership agreements, professional fees</i>	30,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	80,000
	<i>Translation, publication and distribution costs</i>	5,000
	<i>Other expenses</i>	2,000
	Total	117,000

Children's Health and the Environment in North America

3.5.1	Children's Health and the Environment in North America	
	<i>Cooperative and partnership agreements, professional fees</i>	108,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	98,000
	<i>Translation, publication and distribution costs</i>	34,000
	<i>Other expenses</i>	-
	Total	240,000

IV – Law and Policy

Estimated Resources Required (C\$)

Environmental Standards and Performance

4.1.1	Comparative Report on Environmental Standards	
	<i>Cooperative and partnership agreements, professional fees</i>	5,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	25,000
	<i>Translation, publication and distribution costs</i>	-
	<i>Other expenses</i>	-
	Total	30,000
<hr/>		
4.1.2	Environmentally Sound Management and Tracking of Hazardous Waste	
	<i>Cooperative and partnership agreements, professional fees</i>	183,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	195,000
	<i>Translation, publication and distribution costs</i>	-
	<i>Other expenses</i>	-
	Total	278,000

Enforcement Cooperation

4.2.1	Enforcement and Compliance Cooperation	
	<i>Cooperative and partnership agreements, professional fees</i>	28,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	165,000
	<i>Translation, publication and distribution costs</i>	20,000
	<i>Other expenses</i>	-
	Total	213,000

Environmental Policy

4.3.1	Sustainable Use and Conservation of Freshwater in North America	
	<i>Cooperative and partnership agreements, professional fees</i>	25,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	-
	<i>Translation, publication and distribution costs</i>	-
	<i>Other expenses</i>	-
	Total	25,000
<hr/>		
4.3.2	Environmental Management Systems to Promote Compliance and Environmental Performance	
	<i>Cooperative and partnership agreements, professional fees</i>	15,000
	<i>Travel, accommodation, interpretation and meetings expenses</i>	55,000
	<i>Translation, publication and distribution costs</i>	-
	<i>Other expenses</i>	-
	Total	70,000

General

Estimated Resources Required (C\$)

1-5. Program implementation

1.	Environment, Economy and Trade	1,055,000	
2.	Conservation of Biodiversity	887,000	
3.	Pollutants and Health	2,228,000	
4.	Law and Policy	616,000	
5.	Salaries, program implementation	2,284,000	
Total for Program Implementation			7,070,000

7. Secretariat operations

7.1	Salaries, Secretariat operations	1,783,000	
7.2	Telecommunications	130,000	
7.3	Rent	810,000	
7.4	Operating equipment	124,000	
7.5	Office supplies	155,000	
7.6	Relocation and orientation	115,000	
7.7	Recruitment	22,000	
7.8	External administrative support	272,000	
7.9	Corporate Office		
7.9.1	Office of the Executive Director	171,000	
7.9.2	Program Directorate	27,000	
7.9.3	Communications Directorate	27,000	
7.9.4	Mexico Liaison Office	183,000	→ 408,000
7.10	Public outreach	391,000	
7.11	Planning and evaluation	134,000	
7.12	Reserve for unforeseen needs	150,000	
Total for Secretariat Operations			4,494,000

8. Other initiatives

8.1	SOUN	1,435,000	
8.2	NAFEC	755,000	
8.3	Council	295,000	
8.4	JPAC	400,000	
8.5	Salaries, other initiatives	667,000	
Total for Other Initiatives			3,552,000

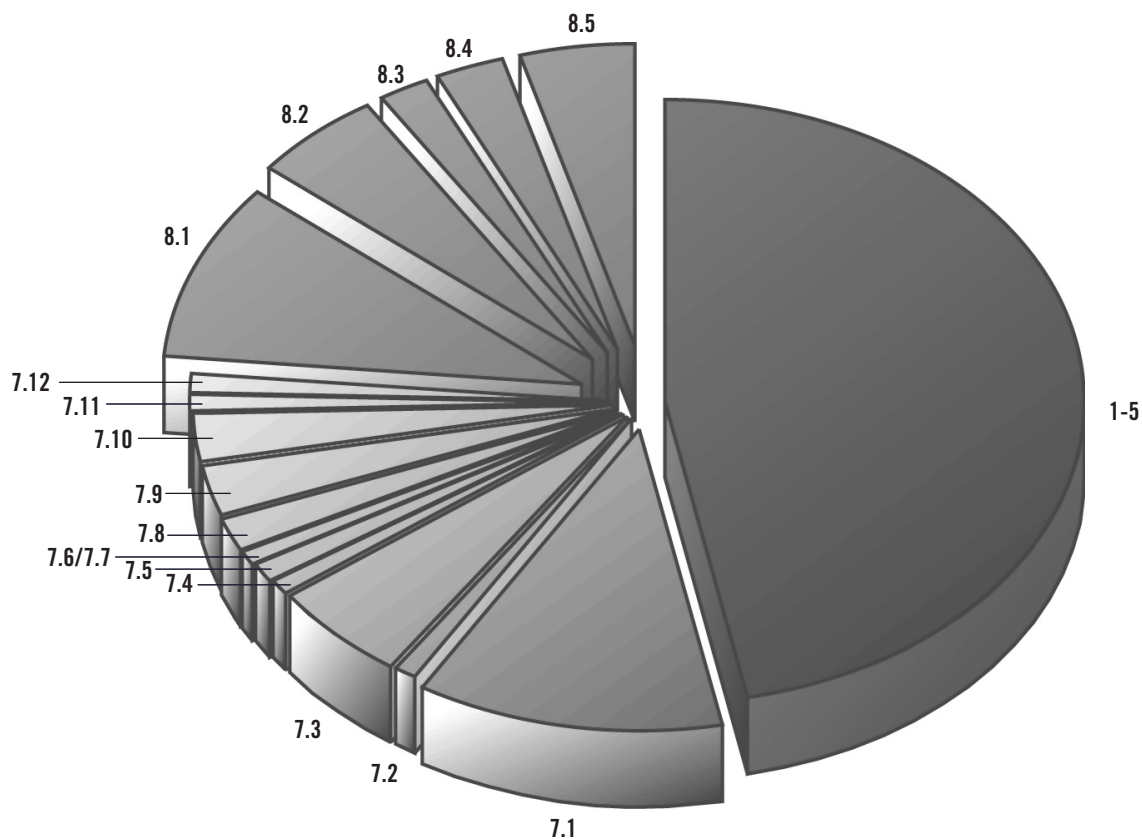
Total Expenses 15,116,000

Revenues

Income	-
Parties' Contributions	13,936,000
Carryover	1,113,000
Interest	67,000
Total Income	15,116,000

Graphic Overview 2003

<i>1-5 Program implementation 46.8%</i>	
<i>7 Secretariat operations 29.8%</i>	
7.1	Salaries, Secretariat operations 11.8%
7.2	Telecommunications 0.9%
7.3	Rent 5.4%
7.4	Operating equipment 0.8%
7.5	Office supplies 1.0%
7.6	Relocation and orientation 0.8%
7.7	Recruitment 0.1%
7.8	External administrative support 1.8%
7.9	Corporate Office 2.7%
7.10	Public outreach 2.5%
7.11	Planning and evaluation 0.9%
7.12	Reserve for unforeseen needs 1.0%
<i>8 Other initiatives 23.5%</i>	
8.1	SOUN 9.5%
8.2	NAFEC 5.0%
8.3	Council 2.0%
8.4	JPAC 2.6%
8.5	Salaries, other initiatives 4.4%



Annex A: A Shared Agenda for Action

A statement on the future work of the Commission for Environmental Cooperation

Mérida, Mexico, 26 June 1998

The three North American environment ministers have reviewed the implementation of the North American Agreement on Environmental Cooperation during its first four years, as well as the operations and effectiveness of the Commission for Environmental Cooperation (CEC).

We have listened to comments and advice from a wide range of people, and particularly want to thank the Independent Review Committee and the Joint Public Advisory Committee.

The CEC is a unique and valuable institution. It represents the state of the art in considering environmental issues in trade agreements, and it has a mandate to promote sustainable development. The CEC brings together two members of the G-7 group of industrialized nations and Mexico, still in many ways a developing country. This grouping of nations provides a microcosm of many of the problems of sustainable development facing the world today. The discussion of sustainability through the CEC provides for direct public input from the citizens of all three countries.

The Commission launched a wide range of projects in its first four years, and has many successes to its credit. It is now time for the CEC to further sharpen its focus. This document begins the process of developing a longer term and more strategic approach to the work of the CEC.

This framework builds on the CEC's strengths. It is trilateral, and should continue to focus its work on issues of common importance to the three countries. It has the concept of sustainable development at its core, and is therefore in an ideal position to identify policies that can promote environmental sustainability.

The CEC is a new institution within a forest of international organizations, and so must continue to select its niche with care, avoiding duplication with other institutions supported by the three countries, and building upon their work where appropriate. It has shown an ability to leverage its limited financial resources and use them to stimulate financial commitments from larger organizations. It can deliver projects "on the ground," and build capacity for environmental management. Because of its emphasis on public participation, the CEC can develop partnerships with the private sector and other actors in civil society.

Given the CEC's resources, it needs to focus on a limited number of projects. The Commission should aim to produce tangible results from some of its projects each year. It will also make capacity building an important part of the work program.

The following two priority areas will be the focus of the CEC's workplans over the next several years: Pursuing Environmental Sustainability in Open Markets, and Stewardship of the North American Environment.

I. Pursuing Environmental Sustainability in Open Markets

Trade liberalization that is supportive of environmental priorities can be helpful in achieving sustainable development. It can provide additional financial resources for environmental protection, and it can provide meaningful employment opportunities for the disadvantaged. It can facilitate the importation and use of the cleaner and more efficient technologies necessary for the transition to sustainable development. It can open new market niches for environmentally friendly products.

But freer trade without robust national environmental policies can also accelerate environmental degradation. There have been fears that it could lead to a "race to the bottom" if countries lower their standards in order to remain competitive and attract foreign investment, and it could lead to unsustainable consumption of natural resources.

However, enlightened management of the trade and environment relationship can result in improved conditions in both sectors. The CEC can help governments to formulate actions and policies that promote the kind of trade that supports sustainable development. It can help governments to monitor trends in domestic legislation and compliance to ensure that domestic laws are being effectively enforced. The Commission can assist the three countries by facilitating cooperative efforts in ensuring compliance.

Pursuing environmental sustainability in open markets includes the following areas of concentration: promoting trade in environmentally friendly goods and services; exploring the linkages between environment, economy and trade; environmental standards, enforcement, compliance and performance; and regional action on global issues.

Promoting Trade in Environmentally Friendly Goods and Services.

The market for cleaner, environmentally sound technologies is estimated at over \$250 billion annually in the OECD countries alone. North America has only scratched the surface of the potential for “greener trade.”

It is important to find ways to make biodiversity conservation more economically viable. Increased legal trade in wildlife, if managed sustainably, can provide resources to preserve and enhance biodiversity in the three countries. As part of seeing that such trade does not harm biodiversity, the CEC should facilitate cooperative efforts by the countries to meet their obligations under Convention on International Trade in Endangered Species of Wild Flora and Fauna, to prevent illegal trade in endangered species.

Properly managed, ecotourism can also bring badly needed financial resources to North America’s poorest regions. It can provide employment, and preserve biodiversity and natural beauty.

More sustainable forms of agriculture provide products for emerging markets. For example, coffee that is planted together with trees, rather than in open fields, can help preserve biodiversity, particularly bird life.

The new project on by-product synergy promises a pioneering experiment among private entrepreneurs, by encouraging industries to exchange, recycle or minimize the creation of materials that are now discharged as wastes. A material that is a waste to one company may be used as a product by another company.

Exploring the Linkages between Environment, Economy and Trade

The CEC will study the positive and negative outcomes for the environment of NAFTA on an ongoing basis. In addition, the CEC will work towards identifying emerging trends related to the environment resulting from expanding economic activity. Identification of these trends will enable the CEC to examine ways in which the parties can foster policies that benefit the environment, and support the development of regional and domestic responses to adverse trends.

The CEC will work with other NAFTA bodies and appropriate international institutions to ensure that trade and environment policies are mutually reinforcing.

Environmental Standards, Enforcement, Compliance and Performance

Experience has shown that it is extremely difficult to compare environmental performance among countries, or even among regions of the same country. Standards are different, pollutants are monitored differently, and legal systems differ. The CEC should therefore build on its existing work on enforcement cooperation. The CEC should concentrate on:

- the analysis of trends in each country’s performance to establish a baseline,
- compliance assistance and information sharing,
- development of compliance indicators that show real changes in environmental performance, and
- the promotion of improved performance through helping to develop expertise in government environmental management systems, voluntary agreements and ways to improve environmental standards.

Regional Action on Global Issues

There is a realization that the traditional “command and control” approach to environmental protection needs to be supplemented by the use of economic instruments and other market based approaches. North America has a wealth of experience in this area.

The solutions to global environmental problems will require new partnerships between North and South. Because of its unique structure, the CEC can provide leadership in the development of some of these partnerships. For example, the Kyoto Protocol on climate change calls for the creation of a Clean Development Mechanism. Within the framework of the protocol, the CEC will work with the three nations and the private sector to develop North American opportunities for the Clean Development Mechanism. The three countries would involve the private sector in efforts to disseminate more environmentally friendly energy technologies. The CEC will also look at how to maximize the potential for carbon “sinks,” such as forests.

II. Stewardship of the North American Environment

North Americans are trustees of an amazing range of terrain, climate and marine, and terrestrial ecosystems. For example, Mexico's biodiversity places it among the 10 "megadiversity" countries in the world. Many of the problems that affect the continental environment are national, and many are shared by two of the three countries. However, there are a number that are spread across the continent as a whole. It is these problems that should concern the CEC.

Stewardship of the North American environment includes: identifying trends in the North American environment; protecting human and ecosystem health; and sustaining North American biodiversity.

The North American Environment—Identifying Emerging Trends

The CEC will continue to provide an important service by identifying emerging threats to the shared environment, thus allowing governments to anticipate these problems and prevent them before they happen. This effort will help governments to move away from the traditional, and more expensive, "react and cure" approach. Identifying emerging threats could be done initially through a regular "issue scan," prepared by leading authorities from the three countries. Because of the interdependence of the region's environment and its economy, such a scan would need to take account of economic, as well as environmental, trends. The environmental effects of deregulation of the electricity sector could be a case in point. The CEC's *State of the Environment* report could provide one of the bases for the scan.

Protecting Human and Ecosystem Health

Here, the CEC has an excellent record of achievement, and has a number of continuing projects such as:

- Cooperation on North American air quality issues
- The Sound Management of Chemicals
- North American Pollutant Releases and Transfers, which produces the *Taking Stock* reports

This work will continue to provide a critical part of the continuing program of the CEC.

Sustaining North American Biodiversity

The CEC has also made a promising start in this area through its work with the North American Biodiversity Information Network, the mapping of ecologically significant areas, and the drafting of a North American cooperative strategy for birds. This could be used as a platform to move toward:

- developing and applying a set of basic "conservation status" indicators, and
- capacity building to help the countries meet their biodiversity objectives.

Bearing in mind the complexity of the issue and the number of activities in this area already underway in North America, a scoping study is required to derive other future program options.

III. Implementing the Agenda for Action

Developing a Strategic Plan and Three-Year Project Cycle for the CEC

To implement a longer-term strategic approach, the CEC will move to a "rolling" three-year plan. The organization will always be planning ahead, and will review and renew its long-term plan every year. This provides an appropriate balance between timeliness of results and the security needed for multi-year projects.

At the organizational level, this approach will be based on close cooperation among the partners which comprise the CEC: Council, the Joint Public Advisory Committee (JPAC) and the Secretariat. The public will be engaged openly and effectively. The Secretariat and JPAC will be working from the start with representatives of the countries to develop the first rolling plan this year and the work program for 1999. In the first year, the influence of the Strategic Plan on the workplan will be limited, as many projects are already in the pipeline. But, by the end of second year, most of the CEC's projects should be developed in accord with the strategic plan.

This will require detailed planning for projects. The Secretariat will need to survey available information resources and, when appropriate, the science base for the issue. In light of the CEC's limited resources, and its function as a catalyst for most of the issues it tackles, projects will need to be able to produce concrete results, and usually be of limited duration. When possible, projects should reflect national priorities to which the governments are willing to commit their own resources for implementation of project results. Most projects will require "exit strategies" detailing how they will be carried on after CEC support has come to an end.

Projects will be designed to include milestones, and an internal mechanism to ensure their achievement. This will also entail regular project evaluation.

The North American Fund for Environmental Cooperation

The North American Fund for Environmental Cooperation (NAFEC) will continue to be a source for community funding, and its effectiveness will be enhanced by focusing grants awards on projects that support CEC's new three-year plan; and NAFEC will also focus on developing the capacity in public participation. This new focus for NAFEC will result in an enhanced capacity of citizens to become active partners in improving the North American environment.

Annex B: CEC Council Communiqué

Ottawa, Canada, 19 June 2002

We, the environment ministers of Canada, Mexico and the United States, members of the Council of the Commission for Environmental Cooperation (CEC or “the Commission”), met for our annual regular session on 18 and 19 June 2002. We reviewed activities of the Commission over the past year and received input and advice from the Joint Public Advisory Committee (JPAC) and the public.

As nations prepare for the upcoming World Summit on Sustainable Development, we uphold the North American Agreement on Environmental Cooperation (NAAEC) and the CEC as examples of successful regional environmental cooperation supporting sustainable development in our three countries.

Our discussions centered on continuing to collaborate through the CEC, and particularly with JPAC, to address environmental priorities in the areas of energy and environment, environment and human health, and partnerships for sustainable development.

Energy and Environment

Protecting our environment as we seek to expand the generation, distribution, and trade of energy between our three countries is a complex challenge. We received a briefing on the activities of the North American Energy Working Group and agree to pursue our efforts in a complementary fashion to those of the Working Group. We thank the CEC Secretariat and the Electricity and Environment Advisory Board for their timely and useful study of the opportunities and challenges associated with North America’s evolving electricity market. Our three countries are already working to address these challenges through the CEC and other bilateral and trilateral efforts. We have given serious consideration to the recommendations of the Secretariat, the Advisory Board, issues raised by the public, and to the question of how the CEC can contribute most effectively to meeting these challenges. We also look forward to receiving further JPAC input on this issue. Based on these considerations, we have agreed to:

- Establish a North American Air Working Group to provide guidance to the Council and facilitate future cooperative work on air related issues.
- Conduct a comparative study of the air quality standards, regulations, planning, and enforcement practices at the national, state/provincial, and local levels in the three countries, building on previous research and work undertaken by the CEC on air management systems of the three countries.
- Conduct a survey to obtain information on the comparability of North American environmental standards governing construction and operation of electricity generating facilities.
- Identify, explore and address issues related to barriers, challenges, opportunities and principles under which emissions trading systems might evolve.
- Continue the Secretariat’s work on renewable energy, including continuing the dialogue on the transparency and scientific and technical basis of renewable energy definitions.
- Support further analysis related to the environmental aspects of development of renewable energy markets; public awareness and education; consistency of databases; emerging renewable low-impact energy technology development and commercialization; transmission and distribution of emerging renewable electricity; and promotion of energy efficiency and combined heat and power.
- Make further progress toward a shared North American emissions inventory by producing a shared emissions inventory for electricity generating stations, a summary report of emissions, and an analysis of the availability and comparability of additional useful data by the end of 2004.

Environment and Health

Children's Health and the Environment

Nowhere are the links between environment and health more important than when we look at children.

We remain committed to integrating children's environmental health considerations throughout the work of the CEC and have asked for continued advice from JPAC in this area.

Based on advice from the public and JPAC, and following discussion with the Expert Advisory Board on Children's Health and the Environment, we have agreed to a cooperative agenda to protect children from environmental risks. Over the next two years, we will focus on the following elements of this long-term agenda:

- Selecting and publishing a core set of children's environmental health indicators for North America;
- Advancing understanding of risk assessment approaches with a view to increasing collaboration on addressing potential risks posed by toxic substances; and
- Enhancing the understanding of the economic impacts of children's environment-related illnesses in partnership with other international organizations.

We welcome the offer of the Expert Advisory Board to take a leadership role in focusing attention on children's environmental health in the education and training of health care professionals in North America, and stand ready to work with our health counterparts to support this initiative.

Moreover, we join the health and environment ministers of the Americas, as well as the G-8 environment ministers, in calling for partnerships to exchange information and develop international indicators on children's health and the environment.

Sound Management of Chemicals

Since 1995, the Sound Management of Chemicals (SMOC) program has helped protect our environment and health with a focus on reducing persistent toxic substances, notably DDT, PCBs, mercury and chlordane. SMOC is a highly successful working example of the implementation of Agenda 21 through regional partnerships and co-operation, including capacity building.

Building on success of the SMOC program, we have agreed to develop a new North American Regional Action Plan (NARAP) targeting lindane. A persistent organic pollutant—one of the most abundant and pervasive insecticide contaminants in our environment—lindane is known to have a number of harmful effects. These are of particular concern in colder northern climates and for children who are placed at increased risk through direct application of lindane-containing products for head lice and scabies control.

In order to better understand pathways of exposure and assess our progress in controlling pollution, we have adopted a new environmental monitoring and assessment NARAP in support of the SMOC initiative. Data gathered and assessed in the implementation of this NARAP will also provide critically important information to support other CEC programs and the national programs of the three CEC partners.

We acknowledge the contributions made by the public in the areas of education and capacity building for the SMOC initiative, look forward to additional JPAC advice, and encourage the SMOC Working Group to take these considerations into account.

Hazardous Waste

Last year, we directed that a continental approach be developed for the sound environmental management and tracking of transboundary hazardous waste movements.

Based on recommendations from the Enforcement Working Group and Hazardous Waste Task Force, we have agreed to:

- Continue development of a common North American approach for environmental sound management of hazardous waste;
- Proceed with a pilot project to track hazardous waste movement between Canada and the United States by means of an electronic notification system; and
- Conduct a feasibility study for a pilot project on electronic tracking of hazardous waste movements between Mexico and the United States, with particular attention to capacity building in Mexico and starting with a prioritized list of substances.

North American Pollutant Release and Transfer Registers (PRTRs)

We consider improved comparability among our respective national PRTRs to be of great importance, since these provide everyone—the public, industry and governments alike—with a better understanding of the sources, management, and opportunities to reduce pollutants affecting the environment and human health. We commend Mexico for the efforts it is making to implement a mandatory and publicly accessible PRTR.

We have approved the Action Plan to Enhance the Comparability of North American PRTRs, including measures to:

- Adopt the North American Industrial Classification System (NAICS) codes for the national PRTR reporting systems of Mexico and the United States;
- Pursue comparability in the manner in which data on persistent, bioaccumulative, toxic substances—particularly, mercury, dioxins and furans and lead—are collected in the three national PRTR programs, subject to the technical, economic, and regulatory capacities of each country.

- Use activity-based reporting thresholds that are nationally determined to ensure consistency of approach across the three systems.
- Support Mexico's efforts to operationalize a mandatory PRTR reporting system and provide public access to data on a chemical-specific and facility-specific basis.

North American Partnerships for Sustainable Development

Partnerships among governments, the private sector and civil society are key to advancing sustainable development. It is important that we draw on the energy, enthusiasm, and potential of all—in particular, that of local communities and the private sector. We have reviewed a number of key partnerships and initiatives supporting cooperation on sustainable development:

North American Bird Conservation Initiative (NABCI)

Birds are a key indicator of the health of our continent's ecosystems. More than a thousand species of birds are found in Canada, Mexico and the United States. Many use habitats in more than one country as they migrate. Over the past century the populations of many birds have declined significantly, often because of habitat loss or deterioration.

NABCI seeks to foster greater cooperation among the nations and peoples of the continent to achieve regionally based, biologically driven, habitat-oriented partnerships—delivering the full range of bird conservation across North America for all birds and all habitats. We have reviewed NABCI's progress and reiterate the CEC's continued support for this initiative. We acknowledge the importance of regionally based partnerships for project delivery and the use of networks and databases that promote conservation delivery and projects that demonstrate NABCI principles. We look forward to working closely with the Biodiversity Conservation Working Group to strengthen the CEC's Conservation of Biodiversity program.

Trade and Environment

We remain committed to engaging civil society in understanding the complex links between trade and environment. We welcome the establishment of the Advisory Group on Assessing the Environmental Effects of Trade and the Call for Papers for a second symposium on assessing the environmental effects of trade in North America. We have agreed to:

Examine links between trade and the environment through a second symposium on the subject, to be held in early 2003. The Council views the symposium as providing an opportunity to compare approaches underway at the national and international levels on environmental assessments of trade in North America, further engage the public in this work, and identify opportunities for policy integration in support of sustainable development.

Take the necessary steps to facilitate public input on the work on Chapter 11 of the North American Free Trade Agreement (NAFTA) underway by the Chapter 11 Experts' Group of the NAFTA Free Trade Commission. We agreed to work with our trade counterparts to arrange a forum where interested parties can express their views on the operation and implementation of the Chapter.

As we approach the tenth anniversary of NAFTA and the NAAEC, we have decided to undertake, by 2004, in collaboration with JPAC and a wide selection of organizations and institutions, a retrospective of our achievements over the past ten years, including the environmental effects of NAFTA, with a view to charting our path for the next decade.

We reiterate our support for the CEC's work on the environmental assessment of trade in the agricultural and energy sectors. We look forward to further work in these areas, particularly analysis of emerging policy issues.

Finance and the Environment

The Council considered the status of current work in the area of finance and environment. Its discussion was framed by a general overview of the broad-ranging interrelation between finance and environment.

In light of this, we have decided to:

- Encourage efforts, in cooperation with the private sector and other institutions, to develop methodologies and information links to provide environmental information in a form more useful to financial institutions and to encourage the use of environmental information in credit, investment and asset risk management decisions;
- Consider how to advance work on existing requirements regarding disclosure of environmental information pertaining to financial reporting;
- Encourage further development of the concept of a North American Green Procurement Initiative; and
- Through a sustainable agriculture fund, encourage small and medium-size sustainable agricultural enterprises.
- We look forward to the results of the JPAC workshop on finance and environment, to be held in Monterrey in December 2002.

Corporate Environmental Stewardship

We believe public-private partnership, which includes governments at the national, state/provincial and local levels, is the best way to promote the widespread adoption of pollution prevention and the use of environmental management systems. To that end, we discussed the role of corporate environmental stewardship programs in recognizing and rewarding environmental leaders in business and government who make public, verifiable commitments to a high level of environmental protection.

We also discussed the role of our respective pollution prevention round tables in advancing pollution prevention in North America, and we reviewed an update from the Parties on environmental management systems.

Following these discussions, we have agreed to:

- Recognize and support the concept of partnership amongst pollution prevention round tables or with other relevant organizations in North America;
- Identify further work in the area of pollution prevention, focusing on where the CEC can add value to activities proposed by the pollution prevention round tables;
- Explore, as appropriate, collaboration with the pollution prevention round tables as well as other relevant organizations on the implementation of the information network for pollution prevention in North America; and
- Sponsor a CEC workshop in 2003 on the implementation of environmental management systems in small and medium-size enterprises to identify and draw on regional experiences and lessons learned.

World Summit on Sustainable Development

The World Summit on Sustainable Development (WSSD) presents a crucial opportunity for the international community to reaffirm its commitment to integrating the economic, social and environmental goals of sustainable development. We affirm the importance of the international consensus reached at the WTO Ministerial in Doha and the Monterrey meeting on Financing for Development as a foundation for sustained growth and development, and express our commitment to provide constructive and substantial input to the WSSD. We have agreed to share with the Summit some of the relevant results and experiences gained through the CEC as an example of regional environmental cooperation in the context of economic integration. We have also explored our mutual interests in the importance of partnership initiatives at the WSSD.

Joint Meeting with the International Joint Commission and International Boundary and Water Commission

We held discussions with representatives of the (US-Canada) International Joint Commission (IJC) and (US-Mexico) International Boundary and Water Commission (IBWC) for the first time. We shared related concerns and discussed a number of areas where coordination could be useful to enhance collaboration between these institutions. We have instructed the Secretariat to strengthen its working relationships with the IJC and IBWC at the staff level and explore possibilities for collaborative activities.

CEC Budget and Next Meeting of Council

The Parties will continue to support the CEC at the level of US\$9 million for the year 2003. We will meet in June 2003, in Washington, DC, for the next Regular Session of Council.

The CEC was established by Canada, Mexico and the United States to build cooperation among the NAFTA partners in implementing the North American Agreement on Environmental Cooperation (NAAEC), the environmental side accord to the NAFTA. The CEC addresses environmental issues of continental concern, with particular attention to the environmental challenges and opportunities presented by continent-wide free trade. The Council, the CEC's governing body, is composed of the federal environment ministers (or equivalent) of the three countries, and meets at least once a year. Attending this ninth session of Council were Canadian Environment Minister David Anderson, Mexican Secretary for Environment and Natural Resources Victor Lichtinger, and US Environmental Protection Agency Administrator Christine Todd Whitman. The Joint Public Advisory Committee (JPAC) is a 15-member, independent, volunteer body that provides advice and public input to Council on any matter within the scope of NAAEC.

For more information on any of the topics reviewed by Council, visit <www.cec.org>.

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