



North American Agenda for Action 2000–2002



*A Three-Year Program Plan for the
Commission for Environmental Cooperation*



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.

COVER:

The spotted owl (*Strix occidentalis*), in its various subspecies, occupies a range from the British Columbian coast to northern Mexico. Mature birds are magnificent predators with a wingspan of more than a meter. Each pair requires a range of 1,600 to 3,600 hectares for hunting and foraging and can nest only in the broken tops of dead “old-growth” firs. The spotted owl’s population has declined steeply in most areas, and is barely stable in only a few. Its conservation is truly of continental concern.

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2000

Table of Contents

Preface	v
Introduction	1
2000–2002 Program at a Glance	4
Environment, Economy and Trade	7
Understanding Linkages between Environment, Economy and Trade	8
1.1.1 Critical and Emerging Environmental Trends in North America	8
1.1.2 Assessing Environment and Trade Relationships	12
1.1.3 Financing and the Environment	16
Green Goods and Services	20
1.2.1 Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade	20
1.2.2 Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species	25
1.2.3 Sustainable Tourism in Natural Areas	29
Conservation of Biodiversity	33
North American Biodiversity Conservation Strategies	35
2.1.1 Strategic Directions for the Conservation of Biodiversity	35
2.1.2 Ecosystem Monitoring Initiative	39
Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species	42
2.2.1 Cooperation on the Protection of Marine and Coastal Ecosystems	42
2.2.2 Mapping Marine and Estuarine Ecosystems of North America	51
2.2.3 North American Marine Protected Areas Network	56
2.2.4 North American Biodiversity Conservation Mechanisms	60
Improving Information on North American Biodiversity	68
2.3.1 North American Biodiversity Information Network	68
Pollutants and Health	75
Cooperation on North American Air Quality Issues	76
3.1.1 Facilitating Trilateral Coordination in Air Quality Management	76
3.1.2 Developing Technical and Strategic Tools for Improved Air Quality in North America	82
3.1.3 Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors	84
Sound Management of Chemicals Program	88
3.2.1 Sound Management of Chemicals	89
North American Pollutant Release and Transfer Register	97
3.3.1 North American Pollutant Release and Transfer Register	97

Pollution Prevention	107
3.4.1 Capacity Building for Pollution Prevention	107
3.4.2 First North American Symposium on Children’s Health and the Environment	113
Law and Policy	115
Environmental Standards and Performance	116
4.1.1 Cooperation between Environmental Laboratories	116
Enforcement Cooperation	121
4.2.1 North American Regional Enforcement Forum	121
4.2.2 Enforcement and Compliance Capacity Building	126
4.2.3 Indicators of Effective Environmental Enforcement	133
Other Initiatives of the CEC	137
Specific Obligations under the Agreement (SOUN)	138
North American Fund for Environmental Cooperation	138
The Joint Public Advisory Committee	139
Budget	143
2000 Project Budget Summary	144
2000 Overall Budget Summary	152
2000 Budget – Graphic Overview	153
CEC Secretariat Directory	154

Preface

The signing of the North American Free Trade Agreement (NAFTA) in 1993 created the world's largest trading block. At the same time, the NAFTA partners sought to build environmental safeguards into the trade liberalization pact and agreed to sign an accord, the North American Agreement on Environmental Cooperation (NAAEC), to do so. The organization created by the Agreement to carry out its provisions is the Commission for Environmental Cooperation (CEC), 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 staffed with environmental experts.

The CEC is now in the second year of its first three-year program plan, a flexible, mid-term planning tool designed to guide the evolution of programs and initiatives and to provide the interested public with key information on future actions. The 2000–2002 Program Plan continues to implement the Council's *A Shared Agenda for Action* by pursuing the twin goals of furthering environmental sustainability in open markets and stewardship of the North American environment.

The 2000–2002 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 outline the concrete steps to be undertaken by the organization to implement the goals of the programs. The programs and projects will continue to evolve over a three-year cycle in response to the results achieved each year.

Year 2000 promises an active and result-oriented agenda for the CEC. Following a decision by Council at the Annual Meeting in Banff, the Sound Management of Chemicals working group will begin developing a regional action plan to reduce the presence in the environment of the highly toxic substances dioxins, furans and hexachlorobenzene. The Pollutants and Health program will also commence work on an environmental monitoring and assessment action plan to improve the relevance, reliability and comparability of environmental information in North America.

In the area of Biodiversity, the CEC will launch the North American Bird Conservation Initiative to protect birds and their vital habitats through a broad range of ecosystem-based strategies. The CEC will also continue to develop a long-range strategy for biodiversity conservation on the continent, taking advantage of the CEC's ability to facilitate cross-boundary coordination and problem-solving.

The Environment, Economy and Trade program will feature work in the area of green goods and services, focusing on tourism in natural areas and organic products such as shade coffee. The program will also host a major symposium on environmental assessment where the CEC-developed framework for assessing the environmental impacts of NAFTA will be put to the test by research centers, universities, nongovernmental organizations and others.

In the area of Law and Policy, the CEC will continue to work with government enforcement officials to pilot compliance indicators, build capacity among wildlife enforcement personnel, and assess the impact of environmental management systems on compliance. The program will launch an initiative to identify and promote the dissemination of best practices to enhance environmental performance, including the measurement and cross-border comparison of relevant standards to provide an empirical foundation for assessing progress in the application of specified practices.

In the category of Specific Obligations under NAAEC, the CEC will make available the resources required to discharge various ongoing functions, including the processing of submissions on enforcement matters under Articles 14 and 15, the preparation of annual reports and studies prepared under Article 13, and other matters identified in the Agreement.

The development of the three-year program plan acknowledges the need and opportunity to establish a strategic mid-term plan that gives direction and constancy to the work of the CEC, while retaining the flexibility to respond to new challenges and opportunities.

The content of the three-year program plan is derived from Council's *A Shared Agenda for Action* and borrows from a number of past consultations and evaluative exercises. In particular, during the past five years, JPAC has convened several public workshops in each of the NAFTA countries to seek input and advice on future directions for the CEC. Following the public consultations, JPAC has formulated specific advice and reports to Council on the strategic direction of the organization.

The 2000–2002 Program Plan also takes up many of the recommendations made by other advisory bodies, including the national and government advisory committees, and the three-member Independent Review Committee convened by Council to conduct a review of the operations and effectiveness of the North American Agreement on Environmental Cooperation. Additionally, the plan incorporates numerous suggestions made by members of the private and public sector currently engaged in CEC-related work, including, for example, consultations undertaken on specific initiatives, such as the Sound Management of Chemicals, the North American Pollutant Release and Transfer Register, Cooperation on North American Air Quality Issues, and other programs and projects.

Approaches

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 level. Through these partnerships, the CEC can maximize the impact of its actions and avoid duplicating the work of others by clearly defining its role and employing its unique attributes to act as convenor, catalyst, and a center for policy, research and information at the North American level. 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.

Role of the CEC

The CEC can play a number of roles that can vary depending on the issue being addressed. They include:

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. 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

If the timing is opportune, 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 Analyst

With its trinational 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 Hub

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. CEC 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

Each program has objectives which are achieved through projects. These projects are implemented through a variety of tools and instruments, depending on the goals and objectives sought by the CEC.

While most of the projects in the 2000–2002 Program Plan were launched in previous years, there is one new project that will begin with a “scoping” phase, designed to evaluate the most promising avenues for future work in the area of innovative financial mechanisms to ensure that any activities will add value and not duplicate the efforts of others. 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 often 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.

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 continued by other institutions.

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. The NAAEC expresses 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 CEC 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 to enhance their capacity to address environmental concerns.

Results

The three-year program plan sets forth an ambitious agenda for cooperation. By clearly stating the goals and objectives of each program, the CEC aims to provide a yardstick against which progress can be measured and evaluated. For the institution as a whole, the CEC will continue with the following ambitious goals:

- to solidify its role as an information hub and policy analysis center for key North American environmental issues;
- to continue demonstrating North American leadership in accelerating the implementation of regional and global initiatives;
- to further the establishment of a North American network of professionals, academics, NGOs and businesses on selected issues of regional environmental importance;
- to enhance its value as a forum for avoiding environmentally-related trade disputes;
- to augment its already significant contribution to the reduction and elimination of pollutants in North America; and
- to enhance the protection of North American ecosystems and biodiversity.

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

2000–2002 Program at a Glance

I – Environment, Economy and Trade

1. Understanding Linkages between Environment, Economy and Trade

- 1.1.1 – Critical and Emerging Environmental Trends in North America
- 1.1.2 – Assessing Environment and Trade Relationships
- 1.1.3 – Financing and the Environment

2. Green Goods and Services

- 1.2.1 – Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade
- 1.2.2 – Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species
- 1.2.3 – Sustainable Tourism in Natural Areas

II – Conservation of Biodiversity

1. North American Biodiversity Conservation Strategies

- 2.1.1 – Strategic Directions for the Conservation of Biodiversity
- 2.1.2 – Ecosystem Monitoring Initiative

2. Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

- 2.2.1 – Cooperation on the Protection of Marine and Coastal Ecosystems
- 2.2.2 – Mapping Marine and Estuarine Ecosystems of North America
- 2.2.3 – North American Marine Protected Areas Network
- 2.2.4 – North American Biodiversity Conservation Mechanisms

3. Improving Information on North American Biodiversity

- 2.3.1 – North American Biodiversity Information Network

III - Pollutants and Health

1. Cooperation on North American Air Quality Issues

- 3.1.1 – Facilitating Trilateral Coordination in Air Quality Management
- 3.1.2 – Developing Technical and Strategic Tools for Improved Air Quality in North America
- 3.1.3 – Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors

2. Sound Management of Chemicals Program

- 3.2.1 – Sound Management of Chemicals

3. North American Pollutant Release and Transfer Register Program

- 3.3.1 – North American Pollutant Release and Transfer Register

4. Pollution Prevention

- 3.4.1 – Capacity Building for Pollution Prevention
- 3.4.2 – First North American Symposium on Children’s Health and the Environment

IV – Law and Policy

1. Environmental Standards and Performance

- 4.1.1 – Cooperation between Environmental Laboratories

2. Enforcement Cooperation

- 4.2.1 – North American Regional Enforcement Forum
- 4.2.2 – Enforcement and Compliance Capacity Building
- 4.2.3 – Indicators of Effective Environmental Enforcement

Other Initiatives of the CEC

- Specific Obligations under the Agreement (SOUN)
- North American Fund for Environmental Cooperation (NAFEC)
- The Joint Public Advisory Committee (JPAC)

Environment, Economy and Trade

The North American Commission for Environmental Cooperation (CEC) is the only intergovernmental environmental organization that has its roots in expanded economic integration brought about by a trade liberalization agreement. Thus, among the core objectives of the CEC is to advance the understanding of the relationship between the environment, the economy and trade, and to encourage cooperation among the three Parties in promoting an integrated approach to environmental protection.

Goals

The Environment, Economy and Trade program area supports the goals of NAAEC to:

- promote sustainable development based on cooperation and mutually supportive environmental and economic policies,
- support the environmental goals and objectives of NAFTA,
- avoid creating trade distortions or new trade barriers,
- promote economically efficient and effective environmental measures, and
- promote “win-win” opportunities for achieving environmental and economic development objectives.

An enhanced understanding of the relationship between environment, economy and trade will assist governments and nongovernmental actors in identifying ways to support environmental protection during trade liberalization and economic growth, develop mechanisms to facilitate environmental protection in a competitive environment, and help avoid environment and trade conflicts. This program area will encourage projects that include the sharing of information on innovative mechanisms to promote synergies between the environment and the economy. The CEC can also play a catalytic role in promoting these opportunities through increased cooperation and dialogue with stakeholders throughout North America. NAAEC and the CEC also provide the framework for encouraging the Parties to share information and experiences and to develop environmental and economic solutions to regional and global issues.

Program Initiatives

The Environment, Economy and Trade program area comprises two program initiatives:

Understanding Linkages between Environment, Economy, and Trade

- Critical and Emerging Environmental Trends in North America
- Assessing Environment and Trade Relationships
- Financing and the Environment

Green Goods and Services

- Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade
- Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species
- Sustainable Tourism in Natural Areas

Understanding Linkages between Environment, Economy and Trade

An enhanced understanding of the links among the environment, economy and trade remains a key consideration in defining the operational implications of sustainable development.

Objective

The objective of this program is to identify both the environmental consequences of increased trade and economic growth, as well as the tools to ensure that growth and environmental protection go hand-in-hand. Such increases in knowledge and analytical capabilities will allow governments and others to better identify, understand and address these linkages.

NAAEC provides a unique institutional framework for regional dialogue between governments and stakeholders, allowing regional approaches to issues that link environment, economy and trade, and NAFTA provides a critical context for this analysis.

Projects

The projects of this program will highlight opportunities for increased cooperation and dialogue to strengthen environmental protection in the region. This will allow the Council to promote environmentally sustainable economic development and support the environmental goals and objectives of NAFTA without the creation of trade distortions or new trade barriers. Work in this program will be undertaken through three projects:

- *Critical and Emerging Environmental Trends in North America*
- *Assessing Environment and Trade Relationships*
- *Financing and the Environment*

1.1.1 Critical and Emerging Environmental Trends in North America

Project Summary

The project seeks to identify and analyze probable environmental issues in the next ten to twenty years (2010 to 2020), both in terms of overall trends, as well as performing a more in-depth analysis of specific issues. Optimal methods will be employed to develop, apply and integrate in different policy-planning cycles predictive environmental tools designed to anticipate, measure and allow the Parties to respond to future environmental change. Accordingly, an important emphasis will be on identifying the types of data required for such an analysis, the appropriate environmental and sustainability indicators to apply, the various models that can be employed, as well as methods by which environmental and economic data can be meaningfully integrated. A related priority will be on identifying underlying economic factors that influence future environmental issues. Project results will seek to communicate complex diagnostic, methodological and other issues in a transparent and comprehensible manner. Results will be made available to the public and to relevant stakeholders through summary reports and a public meeting. Throughout the project, emphasis will be placed on building partnerships with centers of research and academic excellence, the private sector, nongovernmental organizations and the public generally.

Goals and Objectives

The goal of this project is to develop and apply methodologies for examining optimal environmental outcomes in the future. Anticipatory and diagnostic environmental assessment tools will be applied to undertake the following analysis: (a) identify environmental quality and policy trends, based on current environmental and other data; (b) identify “best environmental scenarios” for the future; and (c) examine policy options that help move environmental goals from present trajectories to optimal outcomes.

Among the specific objectives of the Critical and Emerging Environmental Trends project are:

- identifying and quantifying critical and emerging trends in environmental quality;
- assessing the consequences of different environmental trends;
- measuring underlying causal links between probable environmental futures and underlying economic drivers of change;
- developing or selecting state-of-the-art methods, models and approaches to assess environmental futures. The project will provide leadership in the use of models, environmental and other indicators, methods of correlating economic and environmental data, and other tools;
- measuring different impacts and consequences of environmental futures with the aid of such tools as scenarios;
- assisting the Parties in identifying appropriate policies and strategies to manage, avoid or adapt to future environmental change; and
- aiding the Parties to assist the public and private sectors in responding to probable environment scenarios, including identifying appropriate environmental and other policies that mitigate or adapt to trends.

As a tool for strategic policy planning, the project will identify various approaches to assist the Parties to integrate environmental futures into short-term policy-planning cycles as well as to assess the utility of different approaches intended to manage, avoid and adapt to future environmental change. Two methods in particular will be examined: first, an examination of relevant “ecological footprints,” which will be applied to eight to ten key environmental indicators. Second, and related to ecological footprint analysis, will be resource flow indicators, based on material flow analysis. Both methods—ecological footprints and material flow indicators—will be applied to examine current environmental trajectories and optimal, “best case” environmental outcomes.

Results of this project will provide important input to the CEC State of the Environment report, which is prepared periodically pursuant to Article 12 of NAAEC, as well as providing a useful tool in helping to identify priority areas for the work of the CEC more generally.

Rationale

Whenever possible, it is preferable to anticipate and prevent, rather than react after the fact to environmental problems. At the same time, experience suggests that not all future problems can be predicted in advance, nor can undesirable outcomes be avoided entirely. Nevertheless, the early detection of trends is essential for the development of timely, effective and cost-efficient anticipatory and/or adaptive responses. Moreover, environmental policies are more effective when they address not only the symptoms of ecological stress, such as accelerated biodiversity loss or various pollution emissions, but also the underlying causes of environmental degradation. Often economic factors, including changes in resource allocation, trade intensities, scale effects, resource pricing and other factors, combine to exert important direct and indirect effects on environmental quality.

Past environmental policy-making has tended to react to existing environmental problems once they have emerged. One objective of this project is to identify, quantify and communicate potential changes in the economy-environment nexus that help influence future environmental outcomes.

Analysis shows that various economic factors affecting environmental quality and environmental policy are variables such as economy-wide growth, changes in international trade and patterns of investment, and economic changes at the sectoral and inter-sectoral levels—all of which can exert important influences on factors of production, consumption, technological innovation and changes in relative prices. Accordingly, an important emphasis of the project will include estimating underlying economic drivers that affect environmental change.

Progress to Date

This project will build upon work accomplished to date by the Emerging Trends project. Among the milestones of this current work are the following achievements: In December 1998, at the first meeting of the Intergovernmental Experts Group on Emerging Trends, the governments of the Parties confirmed that work by the CEC on emerging environmental trends was feasible, and that it represented a priority area for all three nations. The Experts Group also identified

criteria to help guide the focus of work, as well as reiterating the importance it placed on building partnerships with the public, JPAC, the private sector and other groups. Two background papers prepared by the Secretariat provided an overview of the extensive work underway in the field of emerging or critical environmental trends. The Secretariat also furnished background information on several technical issues, including possible models, methodological approaches, the use of different indicators (including pressure-state-response indicators), scenarios, and the options for integrating advances in environmental economics into forecasting work.

In support of the future work of the Experts Group and its two working groups, the Secretariat was requested to prepare an overview report of critical environmental trends affecting all key environmental media, as well as underlying economic drivers that may shape probable environmental changes in the years 2010 to 2020. This synthesis report was made available prior to the third meeting of the Experts Group, held in late 1999.

Actions 2000

Overview

Actions in support of the above objectives will comprise preparing an overview of current critical environmental trends, drawing on current data sources applied to ecological footprint and material flow indicators. Approximately 8–10 key environmental indicators will be examined, revolving around air, water, land use and biodiversity. A forward-looking, “optimal” scenario will be developed, identifying desired environmental outcomes in the period from 2010 to 2020, and analysis will then be undertaken to identify policy options that could be applied to move current trajectories toward optimal outcomes.

2000		
Action 1: Prepare an overview report summarizing critical and emerging environmental trends		C\$106,000
Activity 1: Prepare a background report (or series of brief reports) that will: (a) highlight current environmental trends covering 8–10 key environmental indicators, (b) be framed in terms of key methodological tools (ecological footprints and materials flow); (c) identify best-case, forward-looking scenario covering 8–10 key indicators, and (d) identify options to achieve optimal outcomes	C\$76,000	
Activity 2: Publication of background report(s), including translation, printing and distribution	C\$30,000	
Action 2: Seek input from independent experts and the public on draft report		C\$67,000
Activity 1: Engage a small group of independent experts to identify key environmental indicators into which the two central methodologies, ecological footprints and material flow analysis, will be developed. This advisory group should include leading experts in the field of environmental forecasting, representatives from centers of excellence, the JPAC and other stakeholders	C\$37,000	
Activity 2: Organize a public meeting to review approaches and initial findings of the draft reports and input from experts group and governments	C\$30,000	
Total Resources Required		C\$173,000

Public Participation

An integral part of the ongoing work on emerging trends will be to support a continuing dialogue with the public in helping to shape the initial reports as well as contribute to the focus of the overall project work. Consultations with selected stakeholders will be held in 2000, in order to solicit views on different approaches and the priorities of various environmental trends. In addition, an advisory group of experts, representative of the private sector and nongovernmental organizations (NGOs), will be formed to provide ongoing guidance to the work of the project.

Capacity Building

This project is a research project intended to raise awareness among a wide range of stakeholders about possible trends in the environment. A major focus will be to identify ways to improve information available to policy makers, the private sector, research organizations, NGOs, and other stakeholders in the three countries about ways of looking at emerging trends.

Expected Results

By October 2000, an interim report will be released as a background report. The first part of the draft report will examine eight to ten key environmental indicators assessed in the context of the two key methods applied (that is, ecological footprints and material flow analysis). The second part of the report will frame an optimal environmental scenario, for the eight to ten indicators examined in section one. The tools to be applied in building the scenario may include an economy-environment model (to be identified) to ensure the internal consistency of the scenario. The final section will identify options needed to help achieve the optimal scenario. The interim report will then seek to encourage input from experts, governments and the public.

Expected Partners and/or Participants

Outside partners will be identified and engaged to strengthen the development and presentation of the selected issue studies.

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. This will include drawing upon environmental data made available through various projects—for example, the Commission's work with the Sound Management of Chemicals and the State of the Environment—so as to ensure that the working groups have access to the most timely and accurate environmental data and include it in their analyses. With regard to the focus on sectors or environmental media, the work of the project will be coordinated with other CEC activities. For example, the working group on transportation and air quality will coordinate its work with the CEC's Pollutants and Health program area, with particular emphasis on the work on air quality in the North American trade and transportation corridors.

Actions 2001

Overview

Actions for 2001 and 2002 will be based on the recommendations of the Intergovernmental Experts Group on Emerging Trends, its two working groups, the independent advisory group, members of JPAC and other relevant stakeholders. It is expected that future priorities will include the following:

- further developing methodological issues;
- updating and improving the overview critical trends report, based on new data, advances and findings made by other groups and organizations;
- selecting additional areas for more focused work to be adopted by the working groups;
- building partnerships with other stakeholders, including the private sector, in order to undertake joint analysis of future issues;
- identifying optimal policy response options, based on findings and recommendations about critical trends by the Experts Group and the working groups; and
- coordinating emerging trends findings into the program planning cycle of the CEC.

2001	
To be determined	
Total Resources Required	C\$222,000

Actions 2002

Overview

Priorities for this year's work will be determined based on the outputs and effectiveness of 2000 and 2001. Among the longer-term goals of the project will be the strengthening of partnerships, with different stakeholders undertaking work on emerging and critical environmental trends. This may include analytical and research partnerships with different institutes and private sector associations. A related priority will be discussions with relevant stakeholders, including economic policy makers, about methods to integrate the key findings of environmental trends analysis into policy planning cycles.

2002	
To be determined	
Total Resources Required	TBD

1.1.2 | Assessing Environment and Trade Relationships

Project Summary

This project seeks to further develop, and apply to sectors and issues in North America, the CEC's *Final Analytic Framework for Assessing the Environmental Effects of the North American Free Trade Agreement (NAFTA)* (hereafter: *Final Analytic Framework*). It will do so in an open and participatory way, inviting other organizations and institutions interested in questions of assessment to apply and further develop the analytical methodology, and then present their findings at a symposium, which the CEC will organize in fall 2000.

Goals and Objectives

The goal of this project is to better understand the linkages between environment and trade in the NAFTA context. Over the long term, this will strengthen environmental protection in the region and enable the NAFTA partners to optimize the benefits of free trade and mitigate any negative impacts.

Specific objectives include:

- actively disseminating the *Final Analytic Framework* for assessing the environmental impacts of trade liberalization measures under NAFTA; and
- convening leading trade and environment policy centers to test and refine the methodology for assessing the environmental impacts of trade liberalization measures under NAFTA, as contained in the CEC-developed *Final Analytic Framework*.

Rationale

This project is intended to build on the initial methodological work carried out by the CEC and contribute to understanding environment-trade relationships. In addition, it will assist the Council to fulfill its mandate under NAAEC Article 10(6)(d) to cooperate with the NAFTA Free Trade Commission to achieve the environmental goals and objectives of NAFTA by "...considering on an ongoing basis the environmental effects of NAFTA."

Progress to Date

In the summer of 1995, the CEC initiated the exploratory phase (Phase I) of the project. This focused on the main elements of NAFTA, considered dimensions of ecological quality and identified major processes that can link environmental development in Canada, Mexico and the United States to NAFTA-induced changes in the trade, investment and economy activity.

In Phase II, specific issue studies were undertaken that, taken together, addressed key elements of the general framework in order to enrich areas where empirical data are not available or to clarify linkages between environmental issues and trade and economic activity. These studies were subjected to expert evaluation in late 1997 and, once completed, contributed to the development of a second draft of *An Analytic Framework for Assessing Environmental Effects of the North American Free Trade Agreement (NAFTA): Phase II*. This was received by Council in 1998 and peer reviewed.

In 1999, the CEC incorporated the results of the peer review into the final draft of the *Analytic Framework*. This was then released by Council, which encouraged its application to particular sectors of the North America economy, or to particular issues of environmental significance in North America. The final draft was subject to comment through a public meeting of the CEC's Joint Public Advisory Committee. The public's comments were incorporated into the *Final Analytic Framework* at the end of 1999.

Actions 2000

Overview

In June 1999, the Council issued a call for papers, inviting potential contributors to participate in a first North American Symposium on Understanding the Linkages between Trade and Environment, to be sponsored by the CEC in October 2000.

The purpose of this symposium is to bring together leading institutions and organizations in North America to discuss the linkages between environment and trade in the NAFTA context and, in particular, to encourage further analysis in light of the methodology developed by the CEC in the *Final Analytic Framework*. The overall goal of the symposium is to advance the understanding of linkages between environment, economy, and trade, in order to strengthen environmental protection in the region. Enhancing our understanding of environment and trade linkages will enable the NAFTA partners to optimize the benefits of free trade and mitigate any negative impacts. The symposium will also point out promising areas for further study.

Papers will be chosen for presentation based on the criteria outlined in the call for papers, released by the Council in June 1999. Once completed papers are received by the CEC Secretariat, they will be peer reviewed and final copies will be made available at the symposium as background materials.

The symposium discussions and results, identifying areas for further study, will be made available to a wider audience through proceedings published in 2001.

2000	
<p>Action 1: Release A Final Analytic Framework for Assessing the Effects of NAFTA on the Environment. This will be published by the CEC as No. 7 in its Environment and Trade Series</p> <p>Activity 1: Translation and printing</p>	<p>C\$30,000</p> <p>C\$30,000</p>
<p>Action 2: The CEC will organize the first North American Symposium on Understanding the Linkages between Trade and Environment. This symposium will be based on selected papers received in response to the June 1999 call for papers issued by the Council</p> <p>Activity 1: Prepare papers for the symposium. This includes distributing limited funds to assist authors, whose proposals have been selected for development but are in need of technical assistance, to prepare submissions for the symposium that are of the highest caliber. Additional costs associated with this activity include expenses necessary to ensure that the papers are peer reviewed, and translating executive summaries</p> <p>Activity 2: Logistical organization of the symposium: including costs related to substantive exercises such as developing the agenda and inviting participants, as well as expenses for publicity, travel, interpretation, translation at the symposium and other expenses. The CEC should seek partner organizations to host the symposium</p>	<p>C\$133,000</p> <p>C\$59,000 (of which C\$30,000 is to augment the NAFTA Assessments Assistance Fund*)</p> <p>C\$74,000</p>
Total Resources Required	C\$163,000

* Figure assumes establishment of the NAFTA Assessments Assistance Fund in 1999

Public Participation

The call for papers for the first North American Symposium on Understanding the Linkages between Trade and Environment was issued to all of the organizations on the CEC's list server. As such, leading institutions and organizations throughout North America have been encouraged to participate in this symposium in the year 2000. In addition, to open up the process to interested organizations that might otherwise not have the capacity to participate, the CEC is offering limited funding to those with the most promising proposals (based on the criteria released by the Council) that are in need of technical/financial assistance. In addition, the symposium itself will be open to stakeholders from a variety of different sectors, including government, environmental nongovernmental organizations, industry, academics, and others interested in enhancing our understanding and assessment of how trade agreements interact with environmental priorities. A Peer Review Committee will provide guidance to the Secretariat in the final selection of papers to be included in the symposium, based on selection criteria developed by the Secretariat.

Capacity Building

Over the past years, through the development of the *Final Analytic Framework*, this project has tested and refined a methodology for trade/environment assessments that is beyond that produced by any other organization. It is hoped that, through application, the framework will continue to be refined and will assist others in developing similar projects. In 2000, the planned symposium will seek to enhance the capacity of interested groups, organizations and institutions to analyze and assess the linkages between environment and trade. By organizing this symposium and offering support to selected groups, the CEC hopes to increase the capacity of North Americans to undertake sound analyses of environmental impacts of trade agreements and improve the information available in the three countries regarding the relationships between environment, economy and trade.

Expected Results

The diffusion and application of the CEC-developed assessment framework will advance understanding of trade-environment linkages at a time when environmental assessment of trade agreements is gaining importance. The CEC anticipates that the model will be employed by international organizations, governments and policy and research centers to assess trade liberalization measures. Additionally, the symposium will call attention to work in this area as well as raise interest in future study.

It is expected that, by the end of the year 2000, the symposium, and the results stemming from it, will lead the CEC to important areas for further study of key trade/environment linkages.

Expected Partners and/or Participants

The CEC will actively seek partners to sponsor and participate in the upcoming symposium. JPAC has identified this project as a priority for its work in 2000. JPAC will participate in the symposium planning and provide the Council with recommendations.

Actions 2001

2001	
<p>Action 1: Release proceedings of the North American Symposium on Understanding the Linkages between Trade and Environment as No. 8 in the CEC's Environment and Trade Series</p> <p>Activity 1: Follow-up: preparation of the proceedings of the symposium and any major conclusions, including proposals for further work based on gaps and needs for additional analytical information; costs include translation, editing and printing costs</p>	<p>C\$44,000</p> <p>C\$44,000</p>
<p>Action 2: Future directions</p> <p>Activity 1: Meeting of the Parties to evaluate the results of the symposium to consider future work in the area of environment-trade assessment and linkages</p>	<p>C\$15,000</p> <p>C\$15,000</p>
Total Resources Required	C\$59,000

Actions 2002

2002	
To be determined	
Total Resources Required	TBD

1.1.3 | **Financing and the Environment**

Project Summary

The purpose of this project is to explore and facilitate partnerships between the financial services sector and community, environmental and other groups that support environmental protection and sustainable development. Among the priorities of the project will be to arrange a dialogue between selective representatives of the North American commercial and investment banking sector (and related insurance, pension funds and other activities) and those representing the environmental agenda, to attempt to identify trends in environment-related financing, including the development and use of innovative financing products, opportunities and partnerships in specific areas, such as the mechanisms of the Kyoto Protocol (hereafter, “Kyoto Mechanisms”), biodiversity, and environmentally sound merchandise and services.

Goals and Objectives

The principal goal of this project is to encourage mutually beneficial, cooperative partnerships between the private financial services sector in North America and community, environmental and other groups that support environmental conservation.

The project will focus on five specific objectives:

- providing timely and relevant information to the financial sector on environmental regulatory, policy and other trends, as well as the financial implications and opportunities arising from the North American and international environmental agenda;
- providing information in support of efforts within the sector to integrate environmental considerations into core business risk management decisions;
- facilitating increased involvement by the sector in financing and investment activities in support of the Kyoto Mechanisms, in particular the Clean Development Mechanism and Joint Implementation;
- encouraging greater involvement by the sector in project and program activities related to biodiversity conservation; and
- making available information and facilitating a dialogue between the financial services sector and relevant producers of green merchandise goods and services.

Rationale

A guiding rationale for this project is the recognition that environmental protection and sustainable development exceeds the capacities and expertise of public finance alone, and that private investment represents an increasingly important component for ensuring that economic globalization and environmental protection are mutually supportive.

Since even before the 1987 Brundtland Commission report, *Our Common Future*, it has been recognized that environmental protection and sustainable development depends on forming innovative partnerships with a broad range of public and private sector groups. Among the recommendations of the Brundtland Commission report was the importance of integrating environmental considerations into key economic decision-making, including investment and finance decisions. Prior to the 1992 UNCED meeting, the important role that commercial and investment banks, and other representatives of the financial services sector, should play in environmental protection was recognized through several initiatives, led by UNEP’s *Statement by Commercial Banks on the Environment*. Since that time, the financial services sector has become increasingly engaged in different aspects of the environmental agenda. These activities include environmental risk management, the adoption of environmental management systems, targeting high-growth areas of the environmental goods and services sector, launching “green” funds, and other areas.

An important part of this project will be to provide linkages to other CEC projects, in particular “win-win” economy-environment projects, such as shade-grown coffee, ecotourism and sustainable trade in wildlife, as well as the CEC’s 1998 work on climate change.

The CEC’s initiative on the upper San Pedro River also provides another clear example by underscoring the potential for innovative transboundary approaches to resource and species conservation. Identifying the initiative as a model of cross-border cooperation, the Council called upon the CEC to develop an implementation strategy to protect the upper reach of the river, one of North America’s most important migratory bird corridors. This initiative responds to the Council’s resolution by exploring collaborative opportunities for this key migratory corridor, particularly that of finding a stable, long-term funding mechanism to support conservation activities in adjacent protected areas.

Progress to Date

This project represents a new initiative by the CEC. However, it is expected to build upon contacts already established with various public sector financial institutions, including the World Bank, the Global Environmental Facility, as well as UNEP, the Secretariat of the UN Convention on Biodiversity, and other relevant organizations. In addition, the project will build upon progress in relevant CEC projects, including the examination of financial mechanisms in support of Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species; the identification of economic instruments in support of the Beaverhill Lake Habitat; analysis of various climate change mechanisms, including results of the 1999 project assessing sectoral and investment opportunities in Mexico related to the Clean Development Mechanism of the Kyoto Protocol, as well as Joint Implementation opportunities for Canadian and US investors; priorities in support of bird conservation and those arising from the Strategic Plan for the Conservation of Biodiversity; and opportunities arising from “win-win” trade and environment projects in the agricultural sector.

Actions 2000

Overview

This project will focus on building practical and collaborative partnerships with the private financial services sector in support of clearly defined environmental objectives pursued by the CEC. As an initial step, analysis will be undertaken of investment trends, opportunities and mechanisms employed in support of environmental protection and sustainable development in North America. Potential partners will also be identified. The second step will entail in-depth analysis of investment and financing opportunities in three specific areas: the Kyoto Mechanisms, biodiversity conservation, and “win-win” trade-environment links.

In addition to these activities, the CEC will also seek to implement Council Resolution 99-04 concerning the initiative on the upper San Pedro River.

2000		
<p>Action 1: Enhance understanding of trends and opportunities in environment-related financing in North America</p> <p>Activity 1: Prepare an overview report of environment-related financing and supporting mechanisms in North America</p>	C\$30,000	C\$30,000
<p>Action 2: Identify potential partnerships involving the financial services sector in support of the Kyoto Mechanisms, with particular emphasis on the Clean Development Mechanism and Joint Implementation</p> <p>Activity 1: Focus the findings of the CEC's project on the Clean Development Mechanism and Joint Implementation into an issues overview report, providing relevant information to the sector regarding investment and partnership opportunities arising from these Kyoto Mechanisms</p>	C\$15,000	C\$15,000
<p>Action 3: Identify investment opportunities arising from the CEC's projects in biodiversity protection, based on the findings of the CEC's Strategic Directions for the Conservation of Biodiversity</p> <p>Activity 1: Prepare a preliminary report on investment opportunities, and options in financial mechanisms, related to biodiversity conservation</p>	C\$15,000	C\$15,000
<p>Action 4: Identify financing and related opportunities arising from trends in the environmental goods and services sector in North America</p> <p>Activity 1: Prepare a preliminary report on the financial and investment implications and opportunities arising from projected growth in green goods and services, drawing upon the work of the CEC in green goods and services, policy and other opportunities identified in the CEC's Critical and Emerging Environmental Trends project, and other sources as required</p>	C\$15,000	C\$15,000
<p>Action 5: Strengthen partnerships involving various stakeholders in increasing financing in support of environmental protection and sustainable development</p> <p>Activity 1: Organize a small meeting of representatives from the financial services sector and relevant environment experts to identify opportunities, partnerships and future needs</p> <p>Activity 2: Identify outreach opportunities in support of this initiative</p>	C\$22,000 C\$15,000	C\$37,000
<p>Action 6: Support the implementation of Council Resolution 99-04 on the upper San Pedro River Initiative, by identifying appropriate financial mechanisms and potential partners</p> <p>Activity 1: Explore possible funding mechanisms for the initiative</p>	C\$22,000	C\$22,000
Total Resources Required		C\$134,000

Public Participation

The first stage of this project will entail identifying specific issues of relevance to securing the increased involvement of the financial services sector in the environmental agenda. Once the CEC has prepared, in cooperation with different public sector stakeholders like World Bank, UNEP and others, the four reports identifying issues and opportunities, as noted above (activities under Actions 1–4), a public meeting will be held to facilitate a focused exchange of information. It is expected that among those who will be invited to provide input to the reports, as well as to participate in the informal discussions, will be environmental and conservation groups concerned with financing, climate change, biodiversity, green trade and other activities, members of JPAC, and relevant public sector stakeholders, following the work of the sector itself in the environmental agenda.

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 environmental, conservation and other groups in the field in how to encourage partnerships that are truly “win-win.” Among the goals of the reports will be a needs assessment to help community, environmental and other groups build beneficial relationships.

Expected Results

The preparation of an overview report and three more detailed reports on investment trends and opportunities in the environmental agenda will identify, quantify and assess, where possible, the different types of links between the financial sector and the environment. Among the results will be a clearer identification of financing needs and opportunities arising from CEC-specific activities, in particular the Commission’s work on “win-win” economy-environment links, biodiversity protection and past work on climate change.

Expected Partners and/or Participants

The CEC expects to involve in this project selected representatives of the private financial services sector, including commercial and investment banks, insurance and re-insurance sectors, pensions and other funds, representatives of relevant international and other organizations, including the World Bank, UNEP and others, and environmental and other groups.

Linkages to other CEC Projects

Early scanning information produced by the CEC’s Critical and Emerging Trends project will inform the future direction of this project. Other input will come from the work of the CEC in the area of green goods and services.

Actions 2001 and 2002

Overview

Actions for the years 2001 and 2002 will be based on the findings of the preliminary reports and the first meetings. However, the success and future of this project should be measured in part by the extent to which it can become self-financing. That is, the CEC’s commitment to the project beyond the exploratory stage set out in 2000 should involve only small administrative and other costs, on the assumption that partners will be found within the private sector itself to continue work in this important area.

2001	
To be determined	
Total Resources Required	C\$30,000

Actions 2002

2002	
To be determined	
Total Resources Required	TBD

Green Goods and Services

An enhanced understanding of the relationship between environment, economy and trade will facilitate the development of mechanisms to harness increased economic integration and growth to promote environmental improvement within trade liberalization regimes. It is of critical importance in developing the capacity of the Parties to define, and subsequently encourage, practices and trade in goods and services that enhance environmental performance and protection, and encourage the sustainable use of natural resources. The CEC can play a catalytic role in identifying and developing these opportunities.

Objective

This program supports the overall objectives of the Environment, Economy and Trade program area by promoting economically efficient and effective environmental measures. It allows the Council to consider and develop recommendations on such issues as environmental matters as they relate to economic development, the environmental implications of goods throughout their lifecycle, labeling and certification, the use of economic instruments, trade-facilitating measures, ecologically sensitive national accounts and other tools. In examining opportunities inherent in so-called “win-win” economic-environment links, the predominant focus of the CEC is to ensure the environmental integrity of expanded production, consumption, and international trade in green goods and services.

Projects

The following projects will be carried out to achieve the objectives and facilitate trade that enhances sustainable development:

- *Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade*
- *Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species*
- *Sustainable Tourism in Natural Areas*

1.2.1 Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade

Project Summary

This project seeks to conduct an in-depth examination of mutually beneficial opportunities stemming from the increased international supply and demand for environmental goods and services. To accomplish this, the CEC will concentrate on ensuring the environmental integrity of the increased trade in environmental goods and services. Two interlocking components will comprise the project: (a) the further analysis of the environmental, marketing and international trade dimensions of sustainable natural resource utilization and (b) an examination of domestic and other policies required to facilitate international trade in green goods and services. In component (a), analysis will continue to concentrate on green goods in the agricultural sector. Emphasis will include continued work on shade-grown coffee, as well as on analysis of one other agricultural product, the production of which has the potential for enhancing habitat conservation. In the second component, (b), analysis will concentrate on identifying policies that serve to distort trade, or to facilitate trade in sustainable agricultural products.

Goals and Objectives

The primary goal of this project is to encourage expanded production, consumption and international trade in the environmental goods and services sector in North America. An important emphasis will be on examining the environmental side of so-called “win-win” economy-environment relationships. In support of this, the project will continue to examine supporting marketing, financing and international trade dimensions of the agricultural sector, with the goal of increasing the market penetration of environmentally sound agricultural goods, and will document and disseminate best practices and lessons learned.

Among the objectives of this project's activities will be:

- a broader and deeper understanding, based on the report of the shade coffee meeting, of practical challenges and opportunities involved in promoting this commodity;
- highlighting the North American market, future opportunities and environmental considerations of one additional agricultural product with the potential for enhancing habitat conservation; and
- a deeper analysis of measures to promote expanded trade in products with the potential for enhancing habitat conservation.

Rationale

Agriculture continues to be the primary focus of this project for several reasons: there are immediate and important points of connection between agricultural production and different natural and environmental resources, as well as important implications for conservation and biodiversity protection. In addition, the consumption of agricultural products has important environmental and human health dimensions; agriculture represents an important area safeguarding sustainable livelihoods in smaller communities; and it remains an important area of international trade.

Recent marketing research confirms the growing consumer interest in, and demand for, environmentally sound agricultural produce. Increased consumer demand reflects both environmental as well as human health concerns related to the types of agricultural products consumed. In response, environmentally sound agricultural production methods represent an increasingly important market segment. Among the public policy challenges arising from trends in supply and demand for environmentally sound agricultural products are the following: ensuring that pricing distortions arising from various trade policy interventions are minimized; supporting, where appropriate, the facilitation of trade and marketing measures in response to consumer interest in verifying “green” product claims; and providing timely, focused information to the producers of green agricultural products about relevant regulations, and marketing and exportation considerations.

Given the inherent complexity and diversity of the agricultural sector, this project will conclude its assessment of one commodity—Mexican shade-grown coffee. The focus of this final stage of the CEC's work on this commodity will be making available to producers, retailers, distributors, consumers, conservation and other groups, the lessons of past work, by publishing the proceeding of the CEC's meeting on shade-grown coffee (to be held in early 2000).

The second phase of this project will focus on one other product which can be produced while promoting habitat conservation. Lessons learned from the work on Mexican shade-grown coffee, in terms of environmental production criteria, levels of retail and consumer interest, retail and financing issues, product verification claims, and so forth, will form a basis for assessing the environmental and other benefits that could accrue from increased production, consumption and trade.

The project will examine the composition, scale and current trends in the production of the product. The project will address various issues—such as verification of production criteria, consumer interest, etc.—related to the production of agricultural products that also promote habitat conservation.

Progress to Date

This project builds upon three projects undertaken to date by the CEC. First, as mentioned above, in 1998 the CEC began to analyze the potential market demand for shade-grown coffee in North America. That study, completed in mid-1999, is the most extensive survey measuring consumer awareness and interest in shade-grown coffee. The study confirmed a strong and growing demand for shade-grown coffee. Second, in 1998, the CEC also began work to help develop criteria intended to define the environmental and production aspects of shade-grown coffee. In mid-1999, in conjunction with the Smithsonian Migratory Bird Center, the CEC released biophysical criteria defining shade-grown coffee. Third, in 1998, the CEC began work on an inventory of environmental labeling, certification and government procurement schemes and related activities in the three NAAEC countries. In addition, the project builds on important lessons gained from several NAFEC grants supporting aspects of shade-grown coffee production and marketing, and of environmentally-preferable goods and services more generally.

Actions 2000

Overview

In 2000, the project will conclude work on Mexican shade-grown coffee, including summarizing lessons learned in the areas of production (including the applicability of biophysical criteria released in 1999) and consumption (including potential market demand), as well as related trade facilitation mechanisms. The final phase of the coffee project will identify North American and other markets, assess a menu of public policy tools available to support increased trade in this commodity, and set out measures needed to ensure environmental integrity. This will involve publishing proceedings of the CEC's shade-grown coffee meeting, presenting best practices and lessons learned from past analysis, and identifying partnerships with different stakeholders in support of "win-win" relations in this area, including small-scale farmers, conservation and biodiversity experts, distributors, retailers, financial institutions, coffee and consumer associations, and other groups. The purpose is to identify concrete and practical marketing opportunities, possible institutional or marketing information bottlenecks, and other issues.

Also in 2000, the project will build upon the practical lessons acquired during the past and concurrent work on shade-grown coffee. Issues to be addressed will include measuring existing and potential demand for one additional agricultural product. This second agricultural product will be chosen according to criteria explicit in this project description: it is produced in an environmentally sound manner and its production has the potential to enhance habitat conservation. The project will also assess the environmental aspects of the production of this product, identify opportunities for producers in North America to respond to increased demand, and identify trade facilitating measures.

The project will begin work by identifying and assessing relevant economic, trade and other policies to determine the positive, negative or neutral effects they may exert on facilitating expanded trade in green agricultural products. Among the policy areas to be examined will be labeling and certification, the effects of various trade restrictions and distortions on these two product areas, and other issues to be determined.

2000		
Action 1: Increase awareness among relevant stakeholders of the environmental and economic dimensions of Mexican shade-grown coffee		C\$118,000
Activity 1: Publish proceedings of CEC's interdisciplinary meeting on Mexican shade-grown coffee, including lessons learned, partnership needs and steps forward	C\$52,000	
Activity 2: Prepare and publish a report on supporting measures to increase "win-win" trade-environment relationships in the area of Mexican shade-grown coffee (including product verification criteria, financing and marketing needs, and future partnerships)	C\$66,000	
Action 2: Undertake preliminary analysis of one additional agricultural product whose production can contribute to habitat conservation		C\$15,000
Activity 1: Conduct analysis of the environmental and market characteristics	C\$15,000	
Action 3: Identify appropriate public policies to facilitate international trade in green goods and services, focusing particularly on sustainable agricultural production		C\$59,000
Activity 1: Undertake an analysis of the possible supporting role of certification, labeling and other measures as a means for increasing consumer awareness of environmentally sustainable agricultural production	C\$22,000	
Activity 2: Identify any trade barriers or distorting measures that may potentially constrain increased production of environmentally sustainable agricultural products	C\$22,000	
Activity 3: Consult with key stakeholders on the findings in connection with environmentally sustainable agriculture products	C\$15,000	
Total Resources Required		C\$192,000

Public Participation

Consultations with selected stakeholders, including government experts, shade coffee and other producers, distributors, marketing experts, consumer groups, environmental and conservation groups, and other relevant parties will be organized in order to consider the results of the work as it becomes available in draft report form. Partnerships will include NAFEC-related communities and organizations involved in the actual production and certification of shade-grown coffee and other products with the potential for enhancing habitat conservation.

Capacity Building

An important element of this project is capacity building. An important focus of work will be on providing the small and medium-size producers with practical marketing information, which includes the market potential for a specific range of commodities. The report addressing "lessons learned" will be developed in consultation with relevant groups involved in recent NAFEC projects in these areas.

Expected Results

A key result of this project is to provide greater understanding of the practical requirements for mutually beneficial results in market development and conservation and environmental protection. The project will help quantify production, consumption and trade opportunities in the agricultural sector. In addition, it will help identify the quantifiable and potential effects of different economic, trade policy and other instruments. This will include the potential role of labeling and certification targeted to consumer groups, trade policy issues related to market access, conformity assessment, criteria equivalency and mutual recognition of different schemes, as well as the effects of different trade measures (such as tariffs, subsidies, border inspection and other measures) in relation to the overall objective of the project, which is to facilitate increased international trade in environmentally sound agricultural products.

Expected Partners and Participants

Expected partners will include producers, distributors, marketing retail, consumer groups, environmental and conservation groups, labeling and certification bodies, financial intermediaries and other stakeholders involved in shade-grown coffee and other products with the potential for enhancing habitat conservation.

Linkages to other CEC Projects

This project will also build upon a number of recent (1998 and 1999) NAFEC projects concerned with Mexican shade-grown coffee, bird conservation and biodiversity-related issues, certification and labeling of non-timber forest and other products.

Actions 2001*Overview*

Future actions will be based on the findings of the continued work in shade-grown coffee and the preliminary work in sustainable agriculture. The issues to be examined may include various marketing and market-based mechanisms to facilitate increased trade in environmentally sound agricultural products; ongoing and timely information to producers regarding marketing as well as domestic regulatory and customs information; and other areas to be defined. Among the probable actions for 2001 are:

- further analysis of the market potential for “green” agricultural products;
- development and adoption of environmental criteria related to production methods for shade-grown coffee and other products with the potential for enhancing habitat conservation;
- identification of appropriate public policies in support of increased trade in these two agricultural product areas;
- identification of other agricultural commodities for market and other supporting measures;
- cooperative partnerships with private sector actors to promote environmentally sound agricultural products; and
- increased public awareness of the potentially positive attributes of environmentally sound products.

Budget

2001	
To be determined	
Total Resources Required	C\$170,000

Actions 2002

Overview

Activities in 2002 will be determined based on lessons learned and the best practices identified through the work in shade-grown coffee and sustainable agriculture. To assess their applicability to other product areas and sectors, lessons learned in the following and other areas will be examined: the environmental implications of promoting green goods; market-assessment needs; policies supporting and facilitating sustainable trade, including certification and labeling schemes; the needs of agricultural producers; and promoting cooperative private-public sector partnerships. Best practices in the use of criteria identified through the project's work will provide the groundwork for promoting trade in other sustainably-produced goods and services.

Budget

2002	
To be determined	
Total Resources Required	C\$170,000

1.2.2 Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species

Project Summary

This project is being undertaken to help the Parties identify opportunities to develop sustainable practices and criteria for trade in wildlife, by ensuring that those practices are legal and biologically sustainable, encourage in situ conservation, create economic opportunities (when applicable), and benefit local communities. In so doing, this project will address questions dealing with the nature and volume of legal trade in wildlife and wildlife products, and the trends associated with that trade and its biological sustainability. The project will also explore development opportunities associated with that trade, along with conservation benefits and impacts on local communities.

Goals and Objectives

The goal of this project is to improve our understanding of the opportunities and challenges related to North American trade in wildlife species. The results of the work undertaken will provide the wildlife conservation community with an expanded toolbox of approaches and methods to support biologically sustainable wild populations of species of concern.

Specific objectives employed to achieve this goal will include:

- Describe and collect data on domestic and international trade in wildlife and wildlife products in North America, including baseline analyses of trade in, and markets for, wildlife and wildlife products, and whether or not trade in particular species or species groups is biologically sustainable.
- Identify and undertake case studies and develop approaches for the non-consumptive and consumptive use of wildlife and wildlife products that: provide benefits for in situ conservation; highlight successful sustainable development opportunities related to wildlife and wildlife products, including labeling and certification schemes, funding mechanisms and other incentives; and maximize benefits to local communities, including effective communication to producers and communities of the importance of biodiversity for their economic and social well-being.

Rationale

The North American Agreement on Environmental Cooperation (NAAEC) mandates the CEC to pursue initiatives directed to the conservation and protection of the North American environment. NAAEC also contains important references to trade and sustainable development. This project is designed to promote the conservation and sustainable use of wildlife species in North America in the context of trade and facilitate the development of regional approaches to sustainable use and biodiversity.

Information on the extent, variety and significance of use of wildlife and wildlife products in North America, and the ecological, social and economic benefits that they can potentially provide, is not readily available throughout North America. In addition, there is at present an extensive, often unsustainable, trade in wildlife and wildlife products, not only within and among the countries of North America, but also throughout the world. This project will assist the Parties in developing a better understanding of the volume and nature of those trade flows and the trends associated with them.

In addition, biodiversity in North America is threatened by a number of practices, including habitat destruction through unsustainable land use. This project will assist the Parties in taking action, in accordance with their national programs and regulations to stop the loss of biodiversity by demonstrating to local communities that while conservation has a cost, biodiversity and ecosystems have value and sustainable practices and sustainable use can be used to promote conservation for the benefit of all.

A North American effort to explore issues surrounding the sustainable use of resources, and to enhance ecosystem management and conservation, will contribute to such an understanding at the local, national, and regional levels. It will also contribute to global initiatives encouraging sustainable use, such as those underway through the International Union for the Conservation of Nature (IUCN), and will help countries implement existing obligations within other international instruments.

Progress to Date

In 1998 the CEC established an Intergovernmental Working Group on Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species. This group met for the first time on 16 November 1998, to define the objectives for this project and consider the contents of an initial scoping report undertaken by TRAFFIC on behalf of the CEC. This report identifies and assembles existing information related to the current trade in North American wildlife and wildlife products. It was made available to the Intergovernmental Working Group for their review in September 1999.

In November 1999, the Intergovernmental Working Group and other experts participated in a one-day meeting to review the final report and to discuss opportunities for further work on this project. At that meeting, the Working Group identified a set of "factors for consideration" to help select a target species or group of species as a subject for a pilot project. The factors fall into three areas: biological, socioeconomic and legal. The Working Group agreed that the pilot project would examine how to build sustainable trade in a target species, and include the identification of different tools needed to facilitate sustainable trade. The factors also recognize that the CEC is best placed to complement existing work in the three countries rather than to begin work on a species for which little or no data are available.

Actions 2000

Overview

To complete the scoping phase of the project, each of the Parties in the Working Group will use the factors agreed to at the November 1999 meeting to submit a list of three species/groups, which the Secretariat will share with all three Parties. Follow-up work will comprise selecting one species or group on a pilot basis, to be completed by January 2000. Following the selection of a species, the Working Group has agreed that a work plan will be developed. The project will build on existing, successful initiatives to manage the commercialization of wildlife in a sustainable way, to protect the integrity of the wild species and alleviate pressure on species that may otherwise become threatened or endangered as a result of their

commercial harvest. The first stage of the pilot project, expected to last two years depending on the species selected, is an environmental baseline study that examines the environmental implications of harvest and trade, where applicable. The second phase of the pilot project would be designed, using the data for effective conservation, to explore opportunities for development and marketing.

2000		
Action 1: Environmental baseline study for target species		C\$99,000
Activity 1: (January 2000) Identify target species/group as well as ongoing work and partner organizations concerned with the chosen target species	C\$9,000	
Activity 2: (March 2000) Develop terms of reference for an environmental baseline study for the target species and additional activities, as indicated. This will include input from partner organizations and the Intergovernmental Working Group (via conference call or written comments)	C\$9,000	
Activity 3: Prepare a detailed outline of the environmental baseline study, including sources of information, data availability, lines of analysis and issues for further research. This outline will be made available to the Intergovernmental Working Group for review in July 2000	C\$22,000	
Activity 4: Additional activities, as appropriate, following the completion of the baseline text	C\$59,000	
Action 2: Meeting of Intergovernmental Working Group on Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species		C\$15,000
Activity 1: The Intergovernmental Working Group will meet in July 2000 to review progress and consider next steps	C\$15,000	
Total Resources Required		C\$114,000

Public Participation

It is anticipated that the CEC and involved agencies will work closely with communities participating in the pilot phase of the initiative.

Capacity Building

This project will develop information on sustainable consumptive and non-consumptive uses of biodiversity. It is also expected to promote activities, training and infrastructure in communities (including indigenous communities) that depend on commercial markets for wildlife and wildlife products for their livelihood, in order to provide opportunities for development and encourage conservation.

Expected Results

It is expected that this scoping exercise will result in a cooperative agenda in North America on issues related to the conservation of wildlife and the trade in wildlife and wildlife products.

Expected Partners and/or Participants

To be determined, based on the selection of a specific target species.

Linkages to other CEC Projects

Given the important links between resource use on the one hand and conservation and law enforcement efforts on the other, it is also expected that this project will complement and support work being undertaken through the CEC by the North American Wildlife Enforcement Group (NAWEG) and the enforcement agencies of the three countries.

Actions 2001

Overview

It is expected that the environmental baseline study will be undertaken over two years.

2001		
Action 1: Environmental baseline study for target species		C\$80,000
Activity 1: Complete environmental baseline study	C\$59,000	
Activity 2: Translate and disseminate environmental baseline study	C\$21,000	
Action 2: Assessing and monitoring the pilot project		C\$21,000
Action 3: Meeting of the Intergovernmental Working Group on Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species		C\$29,000
Activity 1: This meeting will be held to review the final environmental baseline study on the target species and the progress of the pilot project	C\$29,000	
Total Resources Required		C\$130,000

Actions 2002

Overview

The focus in 2002 will be on the pilot implementation of mechanisms to develop market opportunities for the target species, based on the environmental assessment conducted in 2000–2001.

2002	
To be determined	
Total Resources Required	TBD

1.2.3 Sustainable Tourism in Natural Areas

Project Summary

This project will examine ways in which tourism can be used to support regional conservation as well as sustainable tourism projects and practices. It will focus on identifying practical, concrete ways in which to promote sustainable tourism in regions of high ecological significance in North America. Not only regions that are already developed for tourism but also those with the potential for the development of sustainable tourism will be examined.

This project will build upon lessons learned thus far in CEC's work in identifying "win-win" economic and environmental relationships. This includes ensuring the environmental integrity of such "win-win" scenarios; identifying and catalyzing a process to consider the environmental risks, carrying capacities and critical environmental thresholds in selected regions; identifying funding opportunities; and examining various market-based instruments that encourage sustainable touristic activities. In following a region-specific approach, the project will examine the impact of sustainable tourism on natural areas, with a particular emphasis on protected areas.

Goals and Objectives

The principal goal of this project is to determine how sustainable tourism can contribute to the conservation of natural areas in North America.

Near-term objectives of this initiative include:

- Linking sustainable tourism work with two regions identified in the CEC's Strategic Plan for the Conservation of Biodiversity (Strategic Directions for the Conservation of Biodiversity project). The regional approach will help ensure a concrete focus to sustainable tourism. The regions may include both protected and nonprotected areas. The project will focus on one ecoregion at a time with the second regional action plan to be undertaken in 2001.
- Examining the environmental impacts of sustainable tourism. The project will identify environmental assessment needs for sustainable tourism, including methods to link assessments with carrying capacities of particular regions based on existing and future tourism demand and types of tourism activity, and identify potential partners to undertake on-the-ground environmental analysis.
- Preparing guidance criteria for the project—a compendium of sustainable tourism criteria, based on the work of other organizations like the World Tourism Organization, IUCN and others, as a tool to help identify the environmental implications of sustainable tourism.
- Identifying opportunities to foster or modify tourism activities in North American natural areas so that they adhere to the principles of sustainability.

Rationale

In 1998, the global tourism and travel industry generated revenues equivalent to 3.5 trillion US dollars. In North America alone, tourism generates over one trillion US dollars per year, employs a workforce almost as large as the population of Canada, and expends US\$190 billion per year in capital investments. Nature-based tourism accounts for between 10 and 15 percent of all international travel expenditures. It is a critical economic sector in all three countries and, with tourism expected to at least double in the next decade, the opportunities and impacts it creates need to be systematically addressed.

More than any other sector, tourism depends on a healthy natural environment to sustain it. North America is a region of immense natural wealth and beauty. Canada, Mexico and the United States all rely, to varying degrees, on their natural and cultural assets—their mountains and their monuments—to attract visitors and generate tourist dollars, and local communities and national governments all stand to benefit from increases in global tourism. However, there is also the potential to lose. Too-rapid, unplanned, or uncontrolled development all have the potential to create associated environmental degradation over the long term, eroding the quality of the very assets on which such development is based.

In addition, Canada, Mexico and the United States share many natural features, including the ecosystems straddling their borders, major geological formations, like the mountain chain stretching from the Canadian Rockies to the Mexican Sierra Madre, and biota, such as migratory whales, birds, and monarch butterflies. They also share the common challenges of dealing with the negative impact of tourism on popular “hot spots,” and development in remote, rural or aboriginal communities that may be “off the beaten track.” Regional cooperation in tourism development and promotion can lead to greater benefits for all parties and perhaps establish standards and common operating principles to ensure sustainability.

Canada, Mexico and the United States all have an interest in developing and promoting sustainable forms of tourism. And, given its potential to link economic development in the three countries with increased environmental protection and enhancement, sustainable tourism offers a tremendous opportunity for regional cooperation in North America through the CEC.

Progress to Date

The project will be conducted over three phases from 1998 to 2002. Phase I, a scoping exercise, was completed in mid-1999. It consisted of two major activities. The first activity was the development of a report, *Development of Sustainable Tourism in Natural Areas in North America: Background Issues and Opportunities*, which characterized and assessed the current situation related to sustainable tourism in North America. The CEC organized a major workshop in Playa del Carmen, Mexico, on 27–28 May 1999, to consult with stakeholders and experts on some of the key issues raised in the background report. In order to make the workshop discussions and conclusions available to a wider audience, the CEC published the proceedings in late 1999. The key conclusions from the scoping exercise, including discussion at the workshop and among government officials, have provided future directions for this project. Phases II and III will be undertaken over two years and will use and build on the CEC’s background document and the recommendations from the conference to develop and implement practical means of ensuring that tourism in natural areas is sustainable.

Actions 2000

This project will build upon the considerable work already underway in the area of sustainable tourism. While avoiding duplication of that work, the project will capitalize on the comparative advantage of the CEC in focusing on specific regional niches for sustainable tourism and build partnerships with key stakeholders. The CEC will provide support to groups undertaking environmental assessments linking the environmental impacts of tourism to critical thresholds.

The project will concentrate on one or two regions of priority importance for the conservation of biodiversity in North America, to be identified under the CEC’s Strategic Directions initiative. The project will examine tools for generating, collecting and making reliable data on tourism accessible. It will also examine tourism trends in specific regions, the degree of consumer interest in linking tourism with biodiversity protection within those regions, and the environmental dimensions of sustainable tourism, with an emphasis on environmental carrying capacities and critical thresholds for a specific region.

An important reference point in this work is having guiding criteria that adequately define sustainable tourism. To this end, the project will create a compendium of such criteria from work undertaken by the World Tourism Organization, IUCN, the World Business Council for Sustainable Development, UNEP, the World Bank, as well as criteria discussed at the CEC-sponsored meeting on sustainable tourism, held in Mexico in 1999. It will also highlight examples of best practices of sustainable tourism based on the existing criteria. Multi-stakeholder groups of representatives from government, the tourism industry and NGOs will direct these various activities.

2000		
Action 1: Tourism in natural areas and conservation— Action Plan		C\$92,000
Activity 1: Release the proceedings, recommendations and policy lessons of the CEC-sponsored meeting on sustainable tourism in natural areas (held in May 1999), including publications and related costs	C\$18,000	
Activity 2: Prepare a compendium of criteria defining sustainable tourism, drawing on work of the World Tourism Organization, IUCN, UNEP and others, as well as criteria identified at the May 1999 CEC meeting on sustainable tourism. Based on this compendium, suggest priority principles/criteria for sustainable tourism in North America.	C\$15,000	
Activity 3: In addition to assembling and making available to the public sustainable tourism criteria, the project will assemble examples of “best practices” that put criteria and principles into action. Among the practical applications of such criteria is to guide investors seeking to differentiate sustainable from nonsustainable investments in the tourism sector. (The latter part of this activity will be linked with activities under the Financing and the Environment project.)	C\$0	
Activity 4: After selecting one region from the CEC’s Strategic Plan for the Conservation of Biodiversity to serve as the focus of the project work on sustainable tourism, define the needs and specific parameters of an environmental assessment of sustainable tourism in a region. Analysis will focus on how to tailor tourism activities to the carrying capacities of the environment and biodiversity in a given area. This includes consideration of critical thresholds, alternative activities, and partnerships with local communities and others. In addition to identifying the needs, methods and parameters of such an assessment, the project will identify potential partners (including local communities, organizations and the private sector), and act as a catalyst to undertaking sector-relevant environmental assessments.	C\$59,000	
Total Resources Required		C\$92,000

Public Participation

This project has benefited from extensive public participation to date. In particular, the final stage of the scoping exercise involved a two-day consultation with stakeholders and experts in the field, to discuss issues raised in the background documentation and generate recommendations for further work. The proceedings published following the workshop have been made available free of charge in the three languages to an even broader public. This project will continue to involve the many experienced stakeholders working in the field to provide ongoing input and direction. The use of the Internet as a tool for gathering and disseminating information will ensure that it is available to a broad range of stakeholders. In addition, efforts will be made by the CEC to expand its tourism sector network and share information through targeted mail-outs and, where possible, sponsor continued dialogue through workshops.

Important partners in the CEC's work in sustainable tourism will include JPAC and stakeholders involved in NAFEC projects relevant to sustainable tourism.

Capacity Building

Each area of work within this project will include important outreach components to promote the sharing of information, as well as opportunities for dialogue and public participation. It is expected that this will occur at the international level to ensure that project work takes into account the wide range of activities being undertaken by other international organizations. Outreach will also focus on the national, local and community levels. Through consultation, the effective dissemination of information and a focus on national policies and opportunities as well as on local experiences, this project will provide concrete information to local communities on how to develop successful economic initiatives that rely on sustainable tourism. This could be an important tool for building capacity in small, remote, or indigenous communities in close proximity to natural protected areas. A related priority will be to emphasize public and community education in promoting the benefits of sustainable tourism, and practical steps needed to put the criteria defining sustainable tourism into operation.

Expected Results

The CEC will encourage the relevant actors to adopt Principles of Sustainable Tourism for targeted natural areas of North America in order to contribute to the conservation of natural areas in North America. It is expected that the project, in the long term, will institutionalize a North American framework strategy for sustainable tourism in North America.

Expected Partners and/or Participants

The CEC will look for opportunities to create partnerships with relevant government bodies, tourism associations and operators and communities hosting pilot projects and seek their participation in this initiative. In addition, it will encourage relevant actors to adopt the Principles of Sustainable Tourism developed in the program.

Linkages to other CEC Projects

In light of the work of several other organizations in promoting sustainable tourism, this project will build upon the comparative niche of the CEC by coordinating with core program areas, in particular with: (a) Environment, Economy and Trade, and (b) Conservation of Biodiversity. Putting into action the criteria derived for sustainable tourism will be an activity coordinated with the project on Financing and the Environment. The project will also be closely coordinated with the CEC's Strategic Plan for the Conservation of Biodiversity. In particular, it will focus on a region identified under the Strategic Plan as an area of particular ecological significance. In the case that a marine area is selected by this project, linkage will be made with the Marine Protected Areas Network of that CEC project.

Actions 2001 and 2001

Overview

The Sustainable Tourism in Natural Areas project provides one tool or strategy for promoting conservation in the regions identified as North America priorities in the CEC's Strategic Plan for the Conservation of Biodiversity. Accordingly, actions in subsequent years will be incorporated into the regional action plans, as appropriate.

Conservation of Biodiversity

North America has one of the broadest ranges of marine and land biological diversities on Earth. Mexico alone is blessed with megadiversity in its variety of species, ecosystems and the endemisms present on its territory. Together with six other countries, it hosts approximately 60 percent of all known species. However, the problems confronting the North American region are as vast as its wealth of life forms: threats to biodiversity and to the health of North American ecosystems put both at risk for current and future generations. Most problems affecting the North American environment are on the national level; certain others are problems shared by two of the three countries. Nevertheless, the effects and consequences of some of them have the potential to affect the entire continent.

Goals

The mission of work in the Conservation of Biodiversity program area is to promote cooperation between Canada, Mexico and the United States in fostering conservation, sound management and sustainable use of North American biodiversity.

The CEC will intensify its efforts to add value to regional actions for preserving biodiversity by pursuing the following general objectives:

- Identify and evaluate the most promising ways of conserving, fostering and restoring biodiversity and ecological processes in the region.
- Identify and promote instruments and mechanisms for the conservation of regions, areas and corridors used by transboundary and migratory species.
- Establish an ecosystems monitoring initiative for North American priority regions that will give early warning of environmental contingencies and emergencies, allow for a continuous evaluation of conservation actions in ecological regions through the use of performance indicators, and help identify trends related to conservation and utilization of natural resources.
- Create networks of experts to analyze threats to biodiversity and the causes and results of contingencies and then recommend actions for responding to them.
- Promote sustainable use of the products and services afforded by biodiversity.
- Improve information, understanding and awareness of biodiversity, in order to foster better decision-making and a quantitative and qualitative increase in public participation, leading to actions to maintain, conserve, restore and sustainably use biodiversity.

The CEC will use its status as a management organization, consensus builder and catalyst, in cooperation with the three governments and various lobbying groups, to foster the formulation and application of a strategy intended to identify and prevent any threats posed by free trade for biodiversity in North America. It will:

- Include considerations of biodiversity and sustainable use in sectors of activity which affect the environment through use or lead to its degradation.
- Include the input of various interest groups, especially indigenous communities, in planning.

Program Initiatives

In order to carry out the objectives above, the CEC has divided this program area into three parts: first, a diagnosis to identify the current state of the conservation of biodiversity in the region; second, the development of strategies based on priorities of ecological regions and conservation actions that have consensus among the countries and diverse interest groups; and third, the implementation of mechanisms, projects and information management systems. These three parts are detailed in the following work plan:

North American Biodiversity Conservation Strategies

- Strategic Directions for the Conservation of Biodiversity
- Ecosystem Monitoring Initiative [will commence in 2001]

Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

- Cooperation on the Protection of Marine and Coastal Ecosystems
- Mapping Marine and Estuarine Ecosystems of North America [will commence in 2001]
- North American Marine Protected Areas Network
- North American Biodiversity Conservation Mechanisms

Improving Information on North American Biodiversity

- North American Biodiversity Information Network

North American Biodiversity Conservation Strategies

Objective

A key goal of this program is to identify opportunities for effective cooperation in biodiversity conservation. This program will concentrate on developing strategies to address key conservation issues and ecoregions identified by the parties as priorities for cooperation.

Projects

These objectives will be met through two projects:

- *Strategic Directions for the Conservation of Biodiversity*
- *Ecosystem Monitoring Initiative (begins only in 2001)*

2.1.1 Strategic Directions for the Conservation of Biodiversity

Project Summary

In this project, the CEC will develop its long-term agenda for North American cooperation on a strategic and concerted approach to North American biodiversity conservation issues and priority ecoregions. A general overview assessing the state of biodiversity in the region will be produced, along with a strategic plan focusing on priority North American ecoregions.

Goals and Objectives

The goal of this project is to develop a strategic plan for the CEC in the area of biodiversity.

The objectives of the project include:

- identifying key issues affecting North American conservation and sustainable use of marine, coastal and terrestrial biodiversity that would benefit from concerted action at the North American scale;
- identifying priority geographical areas or regions for North American cooperation;
- identifying needs and priorities for capacity building in the various sectors involved in North American biodiversity conservation; and
- developing the CEC's Strategic Plan for the Conservation of Biodiversity.

Rationale

As emphasized in *A Shared Agenda for Action*, many ENGOs, government departments and international organizations are working to conserve North America's natural heritage. The CEC must build on the efforts of this broad conservation community and identify actions that add value by drawing on its special capabilities. Through a coordinated, strategic, systematic and ecoregionally oriented effort, the CEC will aid in strengthening the capacity to conserve North American species, ecosystems and natural diversity, responding to the challenge of conserving biodiversity.

Progress to Date

This project builds upon previous and current work of the CEC, as well as on other work of regional relevance, to create a strategy for biodiversity conservation. Previous work of the CEC (among other undertakings, the *Ecological Regions of North America and Terrestrial Ecoregions of North America: A Conservation Assessment*—a project undertaken in partnership with World Wildlife Fund) was used in the foundation of the *Report on the Status of Biodiversity in North America—Integrated Baseline Summary*.

This report, developed in 1999, summarizes the status and potential areas of action for conservation in the region, indicating, in particular, the issues that would benefit from cooperative efforts on a regional scale. Upon Council approval, the CEC's Strategic Plan for the Conservation of Biodiversity, developed from the report and incorporating feedback from various biodiversity conservation regional players, will become the biodiversity conservation action plan for the CEC, defining lines of action the CEC could take for various themes in the short, medium and long term.

Actions 2000

Overview

In collaboration with interest groups—such as indigenous peoples, NGOs, government and academia—priority geographical areas or region(s) will be identified, feedback will be sought, and both combined with the *Integrated Baseline Summary* to form the Strategic Plan. Thereafter, tracking and evaluation mechanisms for the Strategic Plan will be developed and the first two Regional Action Plans will begin to be prepared. Within the framework of the Strategic Plan, the Regional Action Plans will identify a menu of specific actions at the regional level to focus and prioritize CEC efforts.

2000		
Action 1: Identify priority geographical areas or regions for Strategic Plan		C\$36,000
Activity 1: In an experts workshop (which may include participants from government, academia, and NGOs), identify the priority areas or regions for subsequent inclusion in the Strategic Plan	C\$36,000	
Action 2: Prepare, edit and translate first draft of the Strategic Plan		C\$18,000
Action 3: Conduct public consultation workshops to present strategies, build consensus and develop mechanisms to review and evaluate the Strategic Plan		C\$56,000
Activity 1: Coordinate a workshop to establish a trinational group (the Biodiversity Steering Committee—composed of members from sectors such as government, academia, and NGOs, among others) that will review, evaluate and bring guidance to the Strategic Plan	C\$24,000	
Activity 2: Seek and incorporate feedback from the public. Present the draft Strategic Plan at a workshop in addition to other meetings involving, in particular, representatives from indigenous peoples and other relevant groups to seek and incorporate feedback	C\$32,000	
Action 4: Release Strategic Plan		C\$15,000
Activity 1: Edit, translate, publish and release the Strategic Plan	C\$15,000	
Action 5: Begin development of two Regional Action Plans from the Strategic Plan		C\$23,000
Activity 1: Identify stakeholders (drawn from government, indigenous groups, academic and research institutes, national and local NGOs, the private sector and other interest groups) for the development of the Regional Action Plans. Begin development of such plans	C\$23,000	
Total Resources Required		C\$148,000

Public Participation

During each phase of this project from inception to implementation, public participation will be an indispensable component. Work will be performed in coordination with JPAC and the National Advisory Committees to develop ways of obtaining the feedback and active participation of various interest groups. The identification of opportunities and threats to biodiversity conservation, as well as mechanisms that involve the general public in finding solutions to problems will be handled through public participation.

Capacity Building

The Strategic Plan will recognize the different approaches and successful experiences in managing and conserving biodiversity between the three countries. Lessons learned in one country will be exchanged with others. For example, lessons learned from Canada and the United States concerning finance, policies and laws will be exchanged with Mexican success stories concerning private and communal lands and indigenous people. Toward this end, the results from the Integrated Baseline Summary (1999)—a detailed study of strengths and weaknesses in each country for each of the lines of action—are being used to develop the Strategic Plan. The successful application of the Strategic Plan will depend not only on the commitment between the Parties, but also on the real ability of the sectors concerned to bring it to fruition.

Expected Results

Expected results from this project include:

- a long-term agenda for conservation of biodiversity at the CEC, including agreement among key government agencies and conservation experts on priority geographical areas or regions and issues to be addressed through North American cooperation; strategies for cooperation on priority conservation issues and regions (Regional Action Plans)—detailed plans which will provide measurable results to assess the success of efforts addressing priority areas and issues concerning biodiversity;
- a progress review and evaluation process for the Strategic Plan and Regional Action Plans; and
- a financial plan to support the Strategic Plan.

Expected Partners and/or Participants

Partners and participants, including those from the academic community, environmental nongovernmental organizations, governmental agencies, indigenous communities and the private sector, will be defined upon establishment of the Strategic Plan and the definition of the priority geographical areas or regions for the first two Regional Action Plans. The involvement of partners and participants into the CEC Strategic Plan will be crucial. JPAC has identified as a priority the development of strategic directions for the conservation of biodiversity. The participation of the JPAC Biodiversity Conservation Working Group will be an important contributor to the stakeholder meetings.

Linkages to other CEC Projects

This project is to be carried out in consultation with numerous other CEC programs to devise a holistic approach to biodiversity conservation for the CEC. It will establish a framework for future work by assisting in defining priority lines of action, focus on geographic regions or particular issues, and an appropriate role and level of activity for the CEC. For example, the results of this initiative will provide guidance in developing program work in the areas of marine conservation, ecosystem monitoring, trade in wildlife and wildlife products, green goods and services, and ecotourism.

Actions 2001

Overview

During the year 2001, in collaboration with the various interest groups, the first Regional Action Plans will be finalized and begin being implemented. To successfully address the actions presented in the Regional Action Plans, partnerships, capacity building necessities, as well as evaluation and funding mechanisms will be identified.

2001	
Action 1: Implement the Regional Action Plans Activity 1: Coordinate workshops to finalize development of the Regional Action Plans as well as to establish multi-stakeholder steering groups that will bring guidance to the implementation of the Regional Action Plans Activity 2: Identify partnerships among the private sector, local and state governments, foundations and multilateral organizations. Develop financial mechanisms and consult with regional partners to help support the Strategic Plan Activity 3: Support the implementation of concrete actions identified in the Regional Action Plans	
Action 2: Develop the mechanisms for the evaluation of the Regional Action Plans Activity 1: Coordinate an experts workshop to establish evaluation mechanism for the Regional Action Plans Activity 2: Develop framework for an ecoregional state of the environment report	
Action 3: Set up a financial mechanism in a selected geographical area or region Activity 1: Organize a meeting to identify regional partners and financial mechanisms that will help support the Regional Action Plans	
Total Resources Required	TBD

Actions 2002

Overview

In 2002, the implementation of the Regional Action Plans will be evaluated. Subsequently, a “lessons learned” report, based on the results of the evaluation, will be developed and released.

2002	
Action 1: Evaluate implementation success of the Regional Action Plans Activity 1: Organize a workshop to evaluate the success of the implementation of Regional Action Plans to date Activity 2: Develop a report on the lessons learned from the implementation of the Regional Action Plans Activity 3: Release the “lessons learned” report	
Total Resources Required	TBD

2.1.2 Ecosystem Monitoring Initiative

Project Summary

The Ecosystem Monitoring Initiative (EMI) is a biodiversity conservation project, based in a priority ecoregion, which will evaluate the state of the environment in that ecoregion, with special emphasis on biodiversity and factors that influence its conservation.

In order to assess the effectiveness of actions and policies concerning biodiversity conservation at an ecoregional level, the CEC will promote cooperation between regional and local institutions involved in monitoring. This initiative will develop a comprehensive picture of the state of biodiversity over time—the results to be shared with regional stakeholders, particularly decision makers and natural resource managers from various sectors and levels to aid in the decision making process.

This initiative is part of a process that started with the Strategic Plan compiled in the course of the CEC's Strategic Directions for the Conservation of Biodiversity project. The results of the ecoregion prioritization process—defined through that plan—will serve as a means to define the EMI model region. Within the priority model region chosen, the EMI will assess and build institutional capacity, as well as link individual monitoring initiatives.

Information from the State of the Environment report, the Emerging Trends project, and the North American Regional Action Plan on monitoring and assessment, the Sound Management of Chemicals project, will be used in the initiative's development. As a result, activities will not commence until the exploratory phase of the Strategic Plan is complete.

Goals and Objectives

The goal of this project is to provide the public and private sector with environmental targets and performance indicators, as well as the means for measuring the effectiveness of actions and policies at an ecoregional scale. This will allow improved decision making and enhanced implementation of preventative measures. In pursuit of this goal, the following objectives will be undertaken:

- Evaluate the effectiveness of actions and policies concerning biodiversity at an ecoregional level.
- Develop a pilot demonstration ecosystem monitoring initiative, potentially across borders, emphasizing harmonized indicators and comparable data within existing infrastructure and available capacity.
- Demonstrate the utility of sound ecosystem monitoring for resource managers, ecologists, planners and decision makers.
- Evaluate the results of the monitoring pilot project for possible application in other regions.

Rationale

The North American Agreement on Environmental Cooperation commits the Parties to report periodically on the state of the environment in the region, to promote measures for responding to environmental contingencies, and to evaluate their environmental effects.

The challenge of achieving biodiversity conservation is a worldwide one; however, actions for environmental protection, mitigation and recovery must be regional and local. Improved tools are needed for decision making and responding to environmental contingencies. In order to fulfill this challenge and need, the CEC ecosystem monitoring pilot will design an open, participatory process based on the best available scientific data.

Progress to Date

This project will draw heavily on the products of the Strategic Directions for the Conservation of Biodiversity project. During the year 2000, a Biodiversity Steering Committee—a trinational evaluation committee composed of experts and representatives of government agencies in the three countries—will be established in the latter project, and a group of priority ecoregions identified. This will constitute the point of departure for the current project.

Actions 2001

Overview

As part of the Strategic Directions for the Conservation of Biodiversity project for the year 2000, priority areas or regions are to be identified. From this group, a model region for the Ecosystem Monitoring Initiative will be selected—based on the decision of a trinational evaluation committee composed of experts and representatives of governmental agencies in the three countries, and in accordance with the Strategic Plan developed in the Strategic Directions for the Conservation of Biodiversity project. Afterwards, a study will be made of the capacities, participants and the variables at different scales in the selected region.

2001	
<p>Action 1: Define the model region for the Ecosystem Monitoring Initiative (EMI) Activity 1: Convene a Biodiversity Steering Committee meeting to define the model region (committee established in the Strategic Directions for the Conservation of Biodiversity project during the year 2000) Activity 2: Establish an interdisciplinary, ecoregional, expert network to guide the EMI</p>	
<p>Action 2: Identify institutional and networking capacity in the model region Activity: Analyze the institutional capacity in the model region to implement first stage of EMI (basic indicators)</p>	
<p>Action 3: Develop the EMI, including political, technical and economic feasibility studies Activity 1: Draft an assessment and monitoring project plan Activity 2: Organize a meeting with the expert network to define the EMI draft Activity 3: Send draft to the Biodiversity Steering Committee for feedback and approval Activity 4: Edit and translate the working document</p>	
<p>Action 4: Present the EMI draft project plan to various interest groups for review Activity: At various meetings (including, but not limited to, those of JPAC, the National Advisory Committees, and the Trilateral Committee for Wildlife and Ecosystem Conservation and Management), present the planned project, seeking and incorporating feedback</p>	
<p>Action 5: Regional alliance for the establishment of the monitoring system Activity: Establish the required regional alliances and agreements for the implementation of the monitoring initiative</p>	
Total Resources Required	TBD

Public Participation

Public participation is an indispensable tool to support ecosystem monitoring. This project requires broad participation of interest groups, from design to regional application. Mechanisms for alerting and informing the public, as well as for evaluating and following up this initiative, will be developed in association with various interest groups.

Capacity Building

The starting point of this project is the identification of regional capacities and thematic, infrastructural and human resource gaps. The second year of the project will feature an intensive emphasis on capacity building, first for major participants (those generating information) and thereafter with communicators, decision makers and users.

Expected Results

- Model region selected
- Ecoregional interdisciplinary expert network established
- Institutional capacity-building needs of the model region identified
- Strategic alliance of the major participants formed
- Agreement on performance indicators, variables to be measured and scales to be used
- System project plan to implement the initiative devised
- Detailed ecosystem data from model region to assess for broader application at priority sites
- Application of NABIN to the ecosystem monitoring initiative

Expected Partners and/or Participants

Although the exact partners and participants will be determined only upon the establishment of the Biodiversity Steering Committee (to be defined in the Strategic Directions for the Conservation of Biodiversity project in the year 2000) and the definition of the EMI model region, private and public organizations involved with monitoring, assessment and environmental indicators will be approached. Candidates include UNEP, IUCN, as well as national organizations.

Linkages to other CEC Projects

Especially during the development of the system project plan, work on the EMI will coordinate closely with such CEC projects as the Sound Management of Chemicals—in particular, as the North American Regional Action Plan on Monitoring and Assessment (Resolution 99-02) is written—the State of the Environment, and Emerging Trends to build on what has already been done. Results from other CEC projects, such as the Marine Protected Areas, Cooperation on the Protection of Marine and Coastal Ecosystems, and the Strategic Directions for the Conservation of Biodiversity will be considered in the identification of model regions for the EMI.

Actions 2002

Overview

The monitoring system, together with its objective and scope, will be established, as will the performance indicators, the variables to be measured, the mechanisms for inter-institutional coordination, and the information system and procedures for decision-making, information dissemination, and public participation. Infrastructure, training, and human resource and financial needs are also to be identified.

2002	
<p>Action 1: Agreement on performance indicators, variables to be measured and scales to be used</p> <p>Activity 1: Organize a workshop of the ecoregional interdisciplinary expert network to define the performance indicators, variables to be measured and scales to be used</p> <p>Activity 2: Draft the final system project plan</p> <p>Activity 3: At the Regular Session of Council, pursue Council approval through the adoption of a resolution</p> <p>Activity 4: Publish and promote EMI document</p>	
<p>Action 2: Adapt NABIN as the information technology and cooperation base for the system’s specific needs</p> <p>Activity: Identify EMI user needs so as to enhance usability of NABIN</p>	
<p>Action 3: Define short-, medium- and long-term capacity building needs</p> <p>Activity 1: Organize a meeting of the interdisciplinary ecoregional expert network to define the short-, medium- and long-term training and infrastructure needs of the initiative</p> <p>Activity 2: Produce a strategy to fulfill the training, infrastructure and financial needs</p>	
Total Resources Required	TBD

Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

Objective

This program is focused on identifying new mechanisms, building capacity and promoting cooperation for the conservation of priority terrestrial and marine ecoregions that contribute to species protection in North America. The marine and coastal conservation project has the objective of protecting marine ecosystems from the effects of land-based human activity. Complementing this are two other marine projects: one to be begun in 2001 that will initiate the mapping of North American marine and estuarine ecosystems, using GIS techniques that have been employed by the CEC for terrestrial ecological regions in North America, and another that lays the groundwork for establishing a network of protected marine areas vital for the conservation of important ecosystems and marine life forms. The biodiversity conservation mechanisms project serves as a framework for three different initiatives: implementation of the regional strategy for the conservation of birds, the development of a mechanism to facilitate coordinated conservation of migratory and transboundary species that are at risk, and the launching of innovative mechanisms to protect priority ecological areas and corridors.

Projects

Work in this program is being conducted through the following projects:

- *Cooperation on the Protection of Marine and Coastal Ecosystems*
- *Mapping Marine and Estuarine Ecosystems of North America [will commence in 2001]*
- *North American Marine Protected Areas Network*
- *North American Biodiversity Conservation Mechanisms*

2.2.1 Cooperation on the Protection of Marine and Coastal Ecosystems

Project Summary

This project has the objective of protecting marine and aquatic ecosystems from the effects of land-based human activity and aquatic invasive species. It is divided into two initiatives: Implementation of the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in North America and Closing the Pathways of Aquatic Invasive Species across North America. The two transboundary GPA pilot efforts are in their final stages of implementation and the new invasive species initiative will develop a coordinated, multinational prevention and control campaign aimed at eliminating pathways for the introduction of invasive species among the coastal and fresh waters of Canada, Mexico and the United States.

GPA Implementation

Since 1996, in an effort to explore ways to protect the marine environment, the CEC has been facilitating regional implementation of the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in North America. The CEC and the Arctic Council are the only international organizations assisting with the implementation of the GPA in North America. While the Arctic Council works on a governmental level, the CEC has been working with agencies, private industry and citizen groups to develop binational pilot efforts to protect marine and coastal ecosystems consistent with the GPA in the Bight of the Californias and the Gulf of Maine—two different coastal areas that are shared on a binational basis.

Closing the Pathways of Aquatic Alien Species across North America

The CEC recognizes the critical emerging issue of aquatic invasive species. North American aquatic ecosystems are being silently overrun by potentially devastating alien invasive species, such as the green crab and chinese mitten crab on the West coast, the zebra mussel and round goby in the Great Lakes, and the rappa whelk on the Atlantic seaboard. Bioinvasions can profoundly transform coastal and freshwater habitats with devastating ecological, economic and human health impacts. Alien species enter our waters through a variety of pathways, most of which stem directly from human activities, including international trade and commerce, shipping, fishing, oil and gas exploration, and aquaculture.

Once established locally, an invasive species may readily spread across international boundaries through long-shore currents or river flow. This project takes a comprehensive approach to this trilateral challenge by evaluating the major pathways of biological invasions within four North American regions, and developing carefully targeted prevention and control measures designed to eliminate future introductions between Canada, Mexico and the United States.

Goals and Objectives

The goal of the initiatives in this project is to protect the marine environment by facilitating regional GPA implementation and closing the pathways of aquatic invasive species.

GPA Implementation

Specifically the project seeks to:

- establish an organizational infrastructure, independent of the CEC, for multisectoral binational cooperation to implement the GPA in the Bight of the Californias and the Gulf of Maine;
- assist the development and implementation of regional action plans for the protection of the marine environment in each of these areas;
- facilitate the exchange of information, enhance understanding of the GPA, and broaden involvement and participation in each region;
- consolidate long-term commitment for GPA implementation in both regions; and
- summarize regional experiences as a model of GPA implementation to share with other regions in North America and worldwide.

Closing the Pathways of Aquatic Alien Species across North America

The fundamental goal of this project is to eliminate pathways of transboundary exchange of invasive alien species among coastal and freshwater ecosystems of Canada, Mexico and the United States. The work involves developing targeted, multi-national, multilingual prevention and control programs tailored to the unique needs of distinct North American aquatic ecoregions: the Pacific Coast, the Gulf of Mexico, the Atlantic Coast, and the Great Lakes. The project will also examine pathways between major drainage basins.

Rationale

GPA Implementation

An issue of concern to Mexico, Canada and the United States is ensuring the quality of the marine environment, as expressed in the “Workshop on Priorities for North American Cooperation for 1999–2001” (25 June 1998). The importance of the marine environment has also been recognized in the Council’s *A Shared Agenda for Action* which states that: “North Americans are trustees of an amazing range of terrain, climate and *marine* and terrestrial ecosystems” (emphasis added).

Coastal and marine areas support a variety of important economic activities, including fisheries and aquaculture, tourism, recreation, industry, and transportation. Marine and coastal areas are experiencing greatly increased pressures as a result of rapid population growth and accompanying development, including that stimulated by increased trade as trade barriers are lifted.

Nearly all of the threats to habitat and marine environmental quality are human-induced pressures—from physical alterations of the environment to pollution impacts from human activities conducted either directly in/on marine waters or within the watershed. Nutrient and bacteria pollution from urban and agricultural runoff, changes in hydrology and salinity to naturally balanced systems, shore erosion, and over-development all currently stress the coastal and marine environment. Land-based activities affect marine environmental quality, which in turn influences other land and water activities and human health.

There has been growing international recognition of the need to protect the marine environment from land-based activities, particularly during 1998, the United Nations-declared International Year of the Ocean. In 1995, Canada, Mexico and the United States participated in the negotiation of and signing of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. It calls for regional and subregional cooperation in identifying problems, priorities, and measures for the protection of marine habitats for sustainable management of marine and coastal environments.

Closing the Pathways of Aquatic Invasive Species across North America

Background

Every day, vitally important coastal aquatic ecosystems around the world are silently transformed and degraded by alien invaders—plants and animals that evolved elsewhere and are brought to new habitats as a result of human activities. 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 are staggering. In the United States alone, the costs to control aquatic invasive species are estimated in the hundreds of millions of dollars each year. As new invaders arrive, and existing species spread, these costs will grow exponentially.

International Dimensions of Bioinvasions

Although aquatic bioinvasions can originate from anywhere, the recent increase in trade and migration within North America 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. Clearly, many of the issues addressed here will be applicable to broader invasives problems as well.

Invasive alien species become established in coastal habitats through accidental and intentional introductions. Presently, the main pathway for invasion in North America is ship ballast water picked up in foreign ports and discharged as a living inoculum into local coastal waters, often with devastating effects on the native flora and fauna. For example, in San Francisco Bay, where very few native species still persist, a new invasive alien species becomes firmly established every 14 weeks as a result of ballast water discharge in the port. This risk may increase as new mega-ports are being planned along all three coasts. Other pathways of introduction in coastal waters include attempts to create a new fisheries by stocking alien species, careless dumping of unused live bait, release of unwanted aquarium animals, and accidental escape of captive animals or their diseases and parasites from aquaculture or research facilities. In most cases, the eventual migration of invasive species across international boundaries is merely a matter of time.

Unlike other forms of pollution that often remain localized, biological invaders rarely stay confined to their initial point of introduction, nor do they respect sovereign boundaries. Instead, aquatic invaders typically spread rapidly along prevailing coastal or river currents, with the species expanding its range hundreds or thousands of kilometers, often in a single reproductive cycle. To an invasive aquatic species, large multinational coastal ecosystems are effectively “borderless” with few impediments to migration. Consequently, 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 or from one drainage basin to another.

Current Capacity Gaps

In spite of the potential international consequences of transboundary invasions, the majority of management efforts to prevent and control the spread of alien species has tended to focus nationally and rarely reach across the very political borders so easily traversed by the invaders themselves. Moreover, few existing educational efforts are multilingual or designed to reflect cultural differences among affected populations, and therefore miss a large segment of the relevant target audience. Perhaps more than any other environmental issue, invasive species require comprehensive and sustained international collaborations, such as that ongoing between the State of Washington and British Columbia on issues concerning invasives in the shared waters of the Georgia Strait/Puget Sound region.

Progress to Date

GPA Implementation

So far, both GPA regional projects have established binational, multi-stakeholder coalitions of individuals, which represent federal, state and local agencies, nonprofit organizations, the academic and private sectors, and indigenous groups, with shared vision and goals. They have also developed regional plans for GPA implementation, through the application of the GPA methodology, and a preliminary identification of partnerships and funding sources for the implementation activities.

Gulf of Maine

During 1998, the Gulf of Maine Ad Hoc Committee, known as the Global Programme of Action Coalition for the Gulf of Maine (GPAC), was successful in implementing a five-stage process to develop specific action plans, consistent with the GPA, to protect marine and coastal ecosystems in the Gulf of Maine. After identifying priority lists on pollutants and habitats in the Gulf of Maine, a workshop was organized to assess the adequacy of current activities related to these priorities. The workshop also produced a preliminary identification of partnerships and potential funding sources for implementation activities.

Following the two 1998 workshops, GPAC, at its meeting in St. Andrews, New Brunswick, 25–26 January 1999, recommended that the CEC provide seed funding for the activities listed below.

- A workshop to explore new institutional arrangements between the US and Canada to address issues of regional concern, including the management of sewage-borne contaminants and other toxic chemicals.
- A conference to develop a research program and make policy recommendations for managing the harvesting of low trophic-level species such as rockweed and krill.
- “Communities United for the Gulf of Maine,” an activity intended to expand community-based efforts to monitor environmental quality through networked resources, training, and use of common protocols. It will be coordinated through the Coastal Network, a binational network that is monitoring water quality and other environmental health indicators.
- Educational materials on land-based sources of marine pollution to be developed for a general audience and school children about the impacts of their activities on the marine environment and what to do about them.
- A regional database of salt marsh restoration opportunities and standardized, regionally applicable criteria and protocols for evaluating the success of restoration projects in reconstructing the structure and functions of natural systems. Building on existing work, this initiative will establish a regional network of sites, consolidate and update existing coastal databases, and begin a demonstration project.

The CEC’s North American Fund For Environmental Cooperation (NAFEC) is another source of potential funding for community-based initiatives identified through the GPAC process to prevent marine degradation from land-based activities in the Gulf of Maine. Four full proposals were received from the Gulf of Maine region during NAFEC’s 1999 grant cycle, two of which were funded.

Bight of the Californias

In the Bight of the Californias, substantial progress has been made in defining an organizational framework for GPA implementation in the region. The first Executive Committee, selected during Ad Hoc Committee meeting in May 1998, worked intensively in conducting a survey among Ad Hoc Committee members and, based on the survey results, developed a draft 1999–2000 Program of Activities. During its most recent meeting, held 29–30 April 1999, the Ad Hoc Committee approved this Program of Activities describing a number of specific actions and projects to address the adverse impacts on the shared coastal and marine resources of the Bight of the Californias, in accordance with the objectives and methodology of the GPA. A new Executive Committee, selected at this same meeting, is currently preparing a work plan, describing in greater detail specific tasks, schedules and resources needed to implement the 1999–2000 Program of Activities. Among the highlights:

- *Monitoring Survey:* The Ad Hoc Committee was instrumental in bringing together scientists from the Southern California Coastal Water Research Project (SCCWRP) and the *Universidad Autónoma de Baja California* (UABC) to conduct the first Bight-wide marine monitoring survey encompassing benthic infauna, shoreline microbiology, sediment toxicity, and water quality. More than 30 organizations from both sides of the border joined this effort. The first report on coastal microbiology was released to the public in April of 1999. The next report will appear in the spring of 2000. Reporting on the monitoring survey findings will conclude in the year 2000. This effort will produce an invaluable cross-border assessment of the state of the Bight of the Californias.
- *Point Source Inventory:* Last year the Ad Hoc Committee received a grant from the United States Agency for International Development (US AID) of \$50,000 towards developing a binational geographic information system-based inventory of the point sources of pollution in the Bight of the Californias. A binational planning workshop in September 1999 defined the objectives and parameters for this inventory.

Actions 2000

GPA Implementation

Overview

Gulf of Maine Region

As a closing activity, a workshop to evaluate overall implementation success in the GPA will be organized in the year 2000, where the report summarizing the Gulf of Maine experience and developed in the previous year will be released.

Bight of the Californias region

Work will continue in 2000 in the Bight of the Californias to support the Ad Hoc Committee in its transition from planning to action. The CEC will be facilitating the execution of the Program of Activities developed during 1999, as well as providing seed funds for these initiatives. A funding strategy will be developed in order to augment these initial resources.

“Lessons learned” report

There is great potential to share the lessons learned through the implementation of the GPA in the two pilot projects with other regions in North America, and even outside the continent. In order to do this, the CEC will produce a report in hard copy and on CD-ROM, summarizing the experience of GPA implementation in North America. The “lessons learned” report will be shared worldwide through the UNEP information clearinghouse and the GPA Coordination Office.

Sharing experience gained with other regions in North America

Using the “lessons learned” report, the CEC will identify a team of experts in GPA implementation from the two initial pilot projects and organize workshops in other regions in North America to transfer the experience gained to other regions. Two binational regions have been identified as potential candidates for sharing the GPA methodology:

- Georgia Strait and Puget Sound—the shared marine waters of Washington state and British Columbia—and
- the Gulf of Mexico, bordered by five Mexican states and five in the United States.

Closing the Pathways of Aquatic Invasive Species across North America

Overview

To initiate this effort, a workshop will be organized to assess existing capacities and mechanisms to prevent and control invasions via the primary regional pathways (e.g., ballast water, aquaculture, recreational boating, etc.) in distinct aquatic regions in North America: the Pacific Coast, the Gulf of Mexico, the Atlantic Coast, and the Great Lakes, including selected major drainage basins. The participants will include biologists specializing in invasive species and resource managers from Canada, Mexico and the United States. It will be held in conjunction with a planned meeting of the US Aquatic Nuisance Species Task Force, in order to capitalize on existing expertise and programs and to minimize travel costs.

Based on the results of this workshop and the gaps it identifies, a report will be developed identifying and scoping specific prevention and control projects for high priority invasion pathways in specific regions.

2000		
Action 1: Gulf of Maine		C\$36,000
Activity 1: Prepare and distribute report summarizing Gulf of Maine experience among GPAC members and overall “lessons learned” report on GPA implementation in North America	C\$7,000	
Activity 2: Workshop to evaluate overall GPA implementation in the Gulf of Maine and to define institutional arrangements to continue GPA implementation in the region	C\$22,000	
Activity 3: Include workshop findings in “lessons learned” report	C\$7,000	
Action 2: Bight of the Californias		C\$88,000
Activity 1: Continue implementation of concrete actions identified in the 1999–2000 Program of Activities to prevent marine degradation from land-based activities by facilitating binational coordination and catalyzing seed funds	C\$44,000	
Activity 2: Organize a workshop to assess implementation progress. Include workshop findings in “lessons learned” report	C\$22,000	
Activity 3: Hold a Bight of the Californias Ad Hoc Committee meeting to outline a transition strategy	C\$15,000	
Activity 4: Establish a transition strategy that will address long-term viability of the GPA implementation, including institutional arrangements, funding mechanisms, transfer of electronic mailing list, etc.	C\$7,000	
Action 3: “Lessons learned” report		C\$29,000
Activity 1: Produce draft report analyzing and summarizing experience of both pilot projects	C\$7,000	
Activity 2: Disseminate this draft report to members of both regional committees to obtain their input	C\$7,000	
Activity 3: Produce final report and develop CD-ROM to share with other regions	C\$15,000	

2000 (continued)	
<p>Action 4: Sharing experience gained with other regions in North America</p> <p>Activity 1: Identify a team of experts in GPA implementation from the two initial pilot projects</p> <p>Activity 2: Organize workshops in the Gulf of Mexico and in Georgia Strait/Puget Sound region to share the lessons learned on GPA implementation</p>	<p>C\$29,000</p> <p>C\$1,000</p> <p>C\$28,000</p>
<p>Action 5: Commence work on Closing the Pathways of Aquatic Invasive Species across North America initiative</p> <p>Activity 1: Conduct a workshop to assess existing capacities and mechanisms to prevent and control aquatic Invasive species; choose priority region for targeted educational, prevention, and control measures (to be devised in 2001)</p>	<p>C\$74,000</p> <p>C\$74,000</p>
Total Resources Required	C\$256,000

Public Participation

GPA Implementation

Public participation has been fundamental for the implementation of the GPA in both regions. The ad hoc committees that assist in the implementation of the GPA in each region broadly represent environmental, economic and social interests, and provide a first opportunity for meaningful public participation for the protection of the marine environment. The organization of workshops extends this opportunity to a broader audience. Efforts to further involve the public-at-large include the production of outreach materials and the development of communication tools, such as bulletins and web sites.

Closing the Pathways of Aquatic Invasive Species across North America

The public in each country will have opportunities to participate in all aspects of the aquatic invasive species project, from planning the workshop, to implementation (via community-based conservation efforts), to dissemination of the results (via web-based programs).

Capacity Building

GPA Implementation

Increasing capacity has been central to the GPA pilot projects. Actions in each region have included the establishment of multisectoral ad hoc committees and the development of communication tools to facilitate the exchange of information and networking among committee members and to enhance the understanding of the GPA throughout the region.

In the case of the Bight of the Californias region, the CEC has been supporting the participation of Mexican scientists in the first Bight-wide marine-monitoring survey. Not only has this initiative led Mexican scientists to develop comparable methods for marine monitoring with their US counterparts, it has also opened a forum for cross-border information exchange on the quality of the marine environment.

Closing the Pathways of Aquatic Invasive Species across North America

The aquatic invasive species project will build significant management capabilities in all three countries by leveraging the expertise and regional knowledge of the participants, and by developing multinational programs to prevent and control future bioinvasions. These capabilities will be readily transferable to future needs beyond the scope of this project (e.g., bioinvasions originating outside North America).

Expected Results

GPA Implementation

Upon the completion of these activities to implement the GPA in North America, the CEC will have established a framework for regional cooperation for the protection of the marine environment in the Bight of the Californias and the Gulf of Maine. In implementing the GPA, the CEC will have developed a regional model for cooperation. There is a great opportunity to share the lessons learned with other regions in North America and to gain recognition internationally by disseminating the results of this experience.

In particular, this project will yield the following results:

- An organizational infrastructure will be established for the implementation of the GPA in the Bight of the Californias and the Gulf of Maine, independent of the CEC.
- Regional implementation plans in two regions will be finalized, priorities for action and timelines established, and implementation steps launched.
- Commitment to implementing the GPA from local groups, agencies and members of the public-at-large will be shown by their active involvement and participation in regional activities.
- The exchange of information and an enhanced understanding of the GPA will be achieved through home pages, conferences and bulletins in each region.
- Financial and institutional support will be secured for project activities.
- A report will be produced summarizing regional experiences to share as model for GPA implementation.
- Lessons learned from GPA implementation in two regions will be shared with other regions in North America and worldwide through the UNEP information clearinghouse and the GPA Coordination Office.

Closing the Pathways of Aquatic Invasive Species across North America

The aquatic invasive species project will produce a series of results, ranging from reports outlining gaps in regional prevention and control capabilities, project designs for multilingual prevention and control at the regional scale, increased access to ecologically critical information, and, most importantly, reduced risks of future invasions by alien species.

Expected Partners and/or Participants

GPA Implementation

The Technical Advisory Group for this project involves officials from the Marine Environment Division of Environment Canada, the *Instituto Nacional de Pesca* (INP) of Semarnap, and the Office of International Affairs of the National Oceanic and Atmospheric Administration (NOAA). The Bight of the Californias Ad Hoc Committee includes approximately 80 individuals representing the three levels of government, indigenous groups, academia, and NGOs from this binational region. GPAC for the Gulf of Maine involves 30 representatives of these same sectors from both sides of the border.

Closing the Pathways of Aquatic Invasive Species across North America

The aquatic invasive species project will involve natural resource agencies, academics and the public in all three countries. Within the United States, the project complements many ongoing projects of the Aquatic Nuisance Species Task Force and its member agencies. Preliminary discussions have been initiated among other potential partners.

Linkages to other CEC Projects

GPA Implementation

This project is closely linked to a number of CEC projects. CEC's involvement in the Bight of the Californias and the Gulf of Maine has facilitated multi-stakeholder participation in two binational regions with the common mission of protecting their shared marine and coastal resources from land-based activities through a variety of pollution prevention and habitat conservation initiatives. As the initial pilot experience reaches its end, it is important to continue to promote the links with other CEC projects that have overlapping goals:

- *Mapping Marine and Estuarine Ecosystems of North America project*: This project, commencing in 2001, will provide a geographic biodiversity North American context for finer-scale activities in the Bight of the Californias and the Gulf of Maine. The mapping project can also benefit from the experience in coastal and marine classification systems that has already been undertaken in both regions by local institutions.
- The *North American Marine Protected Areas Network* project will also link the MPAs in both regions. Both regions have enormous experience in dealing with MPAs in a binational context.
- *Sound Management of Chemicals (SMOC)*: An experts workshop on the pathways of chemical contaminants in the marine environment is being planned for 2000 as part of this project. Additionally, Council Resolution 99-02 calls for the development of a North American Regional Action Plan on Environmental Monitoring. Again both regions have experience to offer at a regional level. The Gulf of Maine Council has sponsored a monitoring program that has compiled 10 years of data gathered at a binational level through its Gulf of Maine Mussel Watch Program. The Bight of the Californias binational monitoring survey will also be helpful in identifying the fate and accumulation of toxic substances in marine waters, biota and food chain interactions. The potential work in other regions in North America will enhance the ability of the SMOC project to expand into the marine realm.
- *North American Pollutant Release and Transfer Register*: One of the projects that has been initiated in the Bight of the Californias using US AID funds is the development of a binational GIS-based point and nonpoint source inventory. This initiative will be helpful for the North American Pollutants Release and Transfer Register project efforts to estimate North American emissions from nonpoint sources. One of the challenges in the Bight of the Californias, as in other binational regions, is making information generated in two different countries compatible.
- *Developing Technical and Strategic Tools for Improved Air Quality in North American project*: One of the sources of marine pollution recognized by the GPA is atmospheric deposition. The air quality project has been working with *El Colegio de la Frontera Norte* to develop a GIS-based emission inventory for the communities of Tijuana, Rosarito and Tecate. It is important to link this inventory with the point-source inventory being developed for the Bight of the Californias region. The air quality project has also chosen the Gulf of Maine region as its pilot for the development of a mercury chemistry module that brings synergy to both projects. GPAC identified mercury as one of the priority issues in the Gulf of Maine.

Closing the Pathways of Aquatic Invasive Species across North America

The aquatic invasive species project complements and supports the following ongoing CEC projects:

- Mapping Marine and Estuarine Ecosystems of North America
- North American Marine Protected Areas Network
- North American Biodiversity Information Network, specifically the IABIN invasive species component

Actions 2001

GPA Implementation

Overview

Bight of the Californias region

As a closing activity, a workshop will be organized to evaluate overall implementation success of the GPA in the year 2000, and present the report summarizing the Bight of the Californias experience.

Sharing experience gained with other regions in North America

Activities for the year 2001 and following years will be determined by the results of the workshops organized in 2000 in the two new regions identified.

Closing the Pathways of Aquatic Invasive Species across North America

Overview

Based on the outcome of the workshop in 2000, develop and implement prevention and control programs in a priority region. The specific projects will be determined by the locally identified needs, but it is expected that they will focus mainly on education and outreach efforts, with particular emphasis on multinational, multilingual programs.

2001		
Action 1: Bight of the Californias		C\$37,000
Activity 1: Workshop to evaluate overall implementation success in the Bight of the Californias	C\$37,000	
Action 2: Sharing experience gained to other regions in North America		TBD
Action 3: Prepare report from workshop in 2000 and develop targeted, multinational, multilingual invasive species mitigation education, prevention and control measures for a priority region		C\$148,000
Total Resources Required		TBD

2.2.2 Mapping Marine and Estuarine Ecosystems of North America

Project Summary

This project, which will commence in 2001, will identify and coordinate the development of comparable marine and estuarine ecosystem and habitat classification systems to be incorporated by the Parties into a North American geographic information system (GIS). This will provide the critical first step needed in the identification of key biodiversity areas for conservation, restoration, or sustainable use. In turn, this will serve other strategic needs, such as the development of a representative system of marine and coastal protected areas for North America. This activity is closely coordinated with the project North American Marine Protected Areas Network.

Goals and Objectives

The goal of the project is to provide a geographic framework for conservation and sustainable use of marine and coastal ecosystems. Specifically the project will:

- identify and compile ongoing approaches to marine and estuarine ecosystem and habitat classification and mapping;
- assist the development and implementation of consistent and comparable approaches, especially in shared ecosystems;
- facilitate the development by the Parties of a GIS-based map of major meso-scale marine and coastal ecological regions in North America with overlays of existing marine protected areas;
- outline habitat and ecosystem classification systems and show how habitats are nested within the ecological regions; and
- initiate a marine gap-analysis to provide managers, planners, scientists, and policy makers with the information they need to set priorities for the conservation of coastal and marine ecosystems.

Rationale

The need for information on North America's marine and coastal ecosystems and their resources has never been greater. As development of the coastal zone and exploitation of offshore resources increase, more and more marine organisms, including fish, marine mammals, and sea turtles, and whole ecosystems (e.g., coastal wetlands and coral reefs) are facing increasing threats. The loss of marine biodiversity—of the variety of marine organisms and the ecological complexes of which they are a part—is a major concern of natural resource management agencies in Canada, Mexico, and the United States. The changes in biodiversity are also indicators of habitat destruction and degradation of resources that are vital for economic growth and stability as well as nature conservation. Currently, though, there is a lack of tools to identify critical areas for conservation and to provide objective measurements of changes in aquatic resources (i.e., biological and physical) or of the success of management policies and restoration efforts.

In earlier work, the CEC has supported the development of GIS maps and descriptions of the terrestrial ecological regions of North America. This was done to enhance the capability of both NGOs and governmental organizations to assess the nature, condition, and trends of the major ecosystems in North America. It also served as a basis to promote a common language and understanding of those ecosystems. The proposed marine and estuarine ecosystem mapping project would expand these approaches to the coastal and marine areas of the continent. It would also provide a geographic biodiversity context for finer-scale activities, such as the CEC pilot projects implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in North America.

This activity is the first step in the development of a marine gap-analysis program. Gap analysis is a science-based program for identifying the degree to which native animal species and natural communities are represented in the present-day mix of conservation areas. Those species, communities and ecosystems not adequately represented in the existing network of conservation areas constitute conservation “gaps.” Gap-analysis approaches are currently being applied to provide broad geographic information on the status of species and their terrestrial habitats/ecosystems in Canada, Mexico, and the United States. These programs provide managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. Highly successful in the terrestrial environment, this approach can be augmented by expansion into the marine and coastal areas.

Progress to Date

By the end of 1999 a steering committee will have been established, a contractor hired, and the first stages of the compilation of ongoing approaches to marine and coastal ecosystem and habitat classification will have been started. The US conference, “Development of a National Marine and Estuarine Habitat Classification System,” held by the Ecological Society of America in October 1999, was helpful in identifying some of these approaches. A member of the coastal and marine mapping steering committee also attended the MPA workshop in November 1999, to identify needs and linkages with this mapping project. Due to a major budget cut, the rest of the activities programmed will be undertaken in the year 2001.

This project builds on existing efforts in the three countries:

1. *Canada*: In 1996, Environment Canada in cooperation with Fisheries and Oceans Canada and Parks Canada refined a Marine Ecosystem Classification scheme for Canada based on the basic mapping and classification concepts of the Canada Committee on Ecological Land Classification. It identified ecozones, ecoprovinces, ecoregions and ecodistricts in Canada. The ecozone level of classification was refined by the Canadian Council on Ecological Areas and constitutes the basis for their ecosystem representation and state of the environment work. It is also used by the Canadian Wildlife Service as an ecosystem framework for their activities concerning Marine Wildlife Areas. The development of a national system of Marine Protected Areas in Canada recognizes the need for this type of classification through an “ecological overview” systematic planning approach (Fisheries and Oceans Canada MPA Framework). A detailed marine habitat classification system is being developed for the Pacific Ocean. A pilot project is also being conducted on the Scotian Shelf of the Atlantic Ocean to develop ecological classification. In addition, Environment Canada and Fisheries and Oceans Canada are developing a system of marine ecosystem health indicators.
2. *Mexico*: Mexico, through the *Instituto Nacional de Ecología* of the *Secretaría de Medio Ambiente, Recursos Naturales y Pesca* (National Institute of Ecology, INE-Semarnap) and in coordination with the *Dirección General de Acuacultura* (General Direction for Aquaculture, DGA-Semarnap), has conducted three coastal ecozoning programs at the state level (*Ordenamientos Ecológicos en Zonas Costeras*). Building on this experience, INE-Semarnap is working toward the definition of ecozoning criteria for a National Coastal Zoning Program. Additionally, INE-Semarnap is conducting a marine zoning program for the Sea of Cortez (*Ordenamiento Ecológico del Mar de Cortés*). Parallel to this effort the *Instituto Nacional de Pesca* (National Fisheries Institute, INP-Semarnap) has been working on a characterization and evaluation of aquatic resources in coastal lagoons. In addition, both Conabio and INE-Semarnap are engaged in priority-setting activities for marine protected areas.
3. *United States*: The United States has developed the Aquatic Restoration and Conservation (ARC) Partnership led by the US Geological Survey and the National Oceanic and Atmospheric Administration. Its goal is to characterize and map freshwater, estuarine, and marine species, communities, and their habitats on a landscape scale. With this information, decision-makers and resource managers at local, state, regional, and national levels can evaluate aquatic resources and make more informed decisions about land and water resources. In addition, the Ecological Society of America organized a 1999 conference, mentioned above, to advance the process of defining consistent and comparable approaches throughout the United States.

Actions 2001

Overview

Based on the results of this compilation, a workshop will be held to exchange information and encourage consistent and comparable approaches to ecosystem, habitat and biodiversity classification and mapping, especially in shared ecosystems. The workshop will involve approximately 30 to 40 experts from the three countries, chosen based on their expertise and experience in marine and coastal ecosystem/habitat classification and mapping. Experts will include appropriate representatives from governments, academia, and NGOs.

2001		
<p>Action 1: Identify and compile current approaches to marine and estuarine ecosystem and habitat classification</p> <p>Activity 1: Report compiling current approaches to marine and estuarine classification and exploring and summarizing key issues and current activities in North America; will serve as a background document for the workshop participants</p>	C\$30,000	C\$30,000
<p>Action 2: Assist the development and implementation of consistent and comparable classification approaches, especially in shared ecosystems</p> <p>Activity 1: Experts workshop to identify major marine and coastal ecological regions and consistent and comparable classification approaches for major marine and estuarine ecosystem and habitat types</p>	C\$52,000	C\$52,000
Total Resources Required		C\$82,000

Public Participation

Although the development of North American regional marine and coastal ecosystem and habitat classification systems and GIS maps will rely upon academic, government and NGO technical experts from the three countries, the results will provide an invaluable tool for a much wider and more effective public dialogue on conservation priorities in the three countries. Currently, decisions on the location and benefits of protected areas are made in a primarily local context, with little information on how protection in one area will influence overall biodiversity conservation goals. The identification and mapping of major marine and coastal ecosystems and habitats will facilitate the identification of distant stakeholder groups that may be affected by management actions (for example, regional fisheries whose resources depend upon certain habitats during critical life history stages). The Terrestrial Gap-Analysis Program has been characterized by extensive participation by NGOs, universities, and local, state and federal governments. The project will further involve the public-at-large through the production of outreach materials and maps, and these materials will be made widely available through existing web sites.

Capacity Building

This project will increase capacity in all three countries to identify, characterize and map ecosystems and habitats and biodiversity in marine and coastal environments. Each country in the region has individual experience in aspects of this approach that will benefit the combined effort. This project will identify needs as well as potential partners for the implementation of transboundary marine conservation activities.

Expected Results

This project will bring together existing approaches for marine and coastal ecosystem and habitat characterization and mapping in Canada, Mexico, and the United States. It will provide a tool explicitly intended for assisting networking and setting priorities for marine protected areas in North America—building on the companion Marine Protected Areas Network project. It will provide:

- identification and compilation of ongoing approaches, experts and databases in the three countries—this information compilation is the first step for any coordinated approach to gap analysis and will be in the form of a report that, once reviewed, will form the basis of the follow-up workshop;
- development of consistent and comparable approaches to marine and estuarine ecosystem and habitat classification, especially in shared ecosystems;

- production of a GIS-based map of major meso-scale marine and coastal ecological regions in North America with overlays of existing marine protected areas to outline the ecosystem and habitat classification systems and their nesting within the ecological regions in the three countries; and
- improved capacity of managers, planners, scientists, policy makers and other stakeholders to assess the nature, conditions and trends of the major marine and coastal ecosystems of North America.

Expected Partners and/or Participants

The proposed steering committee will consist of two representatives from each of the three countries. Participation will be expanded as appropriate with experts representing other sectors from the three countries.

Linkages to other CEC Projects

This project will be very closely linked with the work of the North American Marine Protected Areas Network and with the Strategic Directions for the Conservation of Biodiversity project. Once developed, the North American Biodiversity Information Network (NABIN) will also use the GIS-based map of major meso-scale marine and coastal ecological regions in North America. It would also provide a geographic biodiversity context for finer-scale activities, such as the pilot projects implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities through the project Cooperation for the Protection of Marine and Coastal Area Ecosystems.

Actions 2002

Overview

For 2002, an appropriate organization or contractor will be identified by the Parties to incorporate the available information gathered in the first year into a GIS map format. The GIS will be hosted and maintained by the Parties. The key outcome of this activity will be the production of a GIS-based map of major meso-scale marine ecological regions in North America with overlays of existing marine protected areas. The final report will outline ecosystem and habitat classification systems and show how habitats are nested within the ecological regions. The final product will also include the delineation of current marine protected areas in the three countries (note: this has already been accomplished for the United States). In this manner, the project will provide a first approximation that can identify ecosystem and habitat types that may not be adequately incorporated in current protected area systems.

The map and report on major meso-scale marine and coastal ecological regions will then be used in the development of a marine gap-analysis. This activity will be closely linked to the work done through the North American Marine Protected Areas Network. Gap analysis is a science-based program for identifying the degree to which native animal species and natural communities are represented in the present-day mix of conservation areas. Those species and communities not adequately represented in the existing network of conservation areas constitute conservation “gaps.” Gap-analysis approaches are currently being applied to provide broad geographic information on the status of species and their terrestrial habitats in Canada, Mexico and the United States. These programs provide managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. Highly successful in the terrestrial environment, this approach can be effectively extended into the marine and coastal areas.

2002

Action 1: Development of Geographic Information System (GIS)-based map of major meso-scale marine and coastal ecological regions

Activity 1: Development of an ArcView- (or ARC/INFO-) based map of major meso-scale marine and coastal ecological regions

Activity 2: Overlay of existing marine protected areas in North America (working in close collaboration with appropriate representatives from the North American Marine Protected Areas Network)

Action 2: Publication of final report

Activity 1: Publication of final report outlining habitat and coastal classification systems; will describe the major coastal and marine ecological regions and show how habitats are nested within them

Action 3: Initiate a marine gap-analysis

Activity 1: Joint workshop of the North American Marine Protected Areas and North American Marine Mapping working groups to begin the marine gap-analysis work

Action 4: Identify priorities for coastal and marine conservation in North America

Activity 1: Based on the results of the workshop, produce an action plan that identifies priorities and actions for the conservation of coastal and marine ecosystems in North America

Total Resources Required

C\$133,000

Note: Actions for the year 2002 will be developed in close collaboration with the project North American Marine Protected Areas Network.

2.2.3 North American Marine Protected Areas Network

Project Summary

This project will enhance the conservation of marine biodiversity in critical marine habitats throughout North America by creating functional linkages and information exchange among existing marine protected areas (MPAs). The work involves two distinct phases: (a) the establishment and coordination of a permanent network of North American MPAs linked electronically via the World Wide Web (WWW); and (b) the development and implementation of cross-cutting conservation initiatives involving MPA sites with shared ecological links (e.g., critical migratory habitat) across Canada, Mexico, and the United States. As a result of this network, all North American MPAs will benefit from increased and well coordinated conservation efforts, network-wide sharing of lessons learned, and increased access to timely information on emerging threats, novel management strategies and funding or outreach opportunities.

Goals and Objectives

The goal of this project is to establish a permanent network of North American MPAs to enhance and strengthen the protection of marine biodiversity in North America by linking the existing MPAs in all three countries. Specifically the project seeks to:

- enhance the protection of critical marine and coastal habitat and biodiversity in North America by sharing effective conservation approaches and by developing cross-cutting conservation initiatives involving MPA sites with shared ecological links;
- enhance collaboration among the three countries to address common challenges and issues inherent to the protection of marine biodiversity;

- build local, national and international capacity to conserve critical marine and coastal habitats by sharing lessons learned, new technologies and management strategies, and by increasing access to relevant information; and
- facilitate the future design and establishment of a globally representative system of MPAs throughout North America and the world, as called for by the International Union for the Conservation of Nature (IUCN).

Rationale

Marine protected areas are widely believed to be effective tools to safeguard and conserve critical coastal habitats throughout the varied biogeographic zones of North America. However, although many MPA sites and programs already exist worldwide, they are largely operating independently, with relatively little exchange of information, strategies, or lessons learned. Over 270 MPAs are currently employed under a variety of authorities throughout North America to conserve and sustainably utilize marine biodiversity in CEC countries.

While individually these sites provide valuable local protection for marine biodiversity, a greater benefit could be obtained (both locally and globally) if the various sites in North America could collaborate and forge meaningful linkages as they relate to specific species and uses. For example, a number of geographically distant MPAs might be linked ecologically based on their importance in migratory patterns (e.g., gray whales) or in supporting different stages in the life history of important species (e.g., spawning, larvae, juvenile and adult).

Progress to Date

Initial research on the feasibility of this proposal indicated a marked gap in the coordination of existing MPAs. This has been confirmed by the enthusiastic response to this project among international nongovernmental conservation organizations that have confirmed their strong support for the North American MPA network.

During 1999, the members of a North American Steering Committee were identified from governmental agencies and nongovernmental conservation organizations in the three countries. The Committee has been assisting in the organization of a workshop and in the development of a preparatory document for the workshop. Both the workshop and the background paper will advance the goals of understanding the ecological linkages and commonalities among existing North American MPAs—setting a framework to build local, national and international capacity to conserve critical coastal and marine habitats by sharing lessons learned, new technologies and management strategies; and facilitate the future design and establishment of a North American system of MPAs. The workshop, held during the third week of November 1999, laid the groundwork for the production of an Action Plan that will include the necessary steps to create a North American MPA Network. An appropriate representative from the project Mapping Marine and Estuarine Ecosystems of North America participated in this workshop to ensure linkages between both projects. The preparatory document for the workshop, distributed at the end of September 1999, compiled an inventory of North American MPAs together with an overview of the legislation and mandates of MPA-related agencies, the problems and issues facing MPAs shared by the three countries, and the international cooperative agreements in place in North America. With the input from workshop participants, an Action Plan will be produced with specific actions for the year 2000.

Actions 2000

Overview

Activities will be determined by the results of the November 1999 workshop, which will result in a number of specific cross-cutting conservation initiatives that will enhance the protection of biodiversity among participating sites. These initiatives may include cooperative activities among MPA sites that: (a) contribute to strengthening national systems (e.g., evaluate existing monitoring and assessment protocols to develop core parameters, develop transboundary educational programs for use by coastal communities and other stakeholders, etc.) and (b) create opportunities and mechanisms to improve site-specific management and conserve biodiversity through cooperative efforts. Additionally, the participants at the 1999 workshop will be invited to participate in the creation of a permanent alliance of MPAs throughout North America that continue to share critical information to improve the efficacy of marine biodiversity conservation efforts at the national, regional and international level.

2000		
<p>Action 1: North American MPA Action Plan</p> <p>Activity 1: Produce report of November 1999 workshop, including MPA Action Plan</p>	C\$37,000	C\$37,000
<p>Action 2: Implement North American MPA Action Plan (Activities will be determined by the results of the November 1999 workshop)</p> <p>Activity 1: Undertake priority actions identified at the workshop to enhance the protection of critical marine and coastal habitat and biodiversity in North America. <i>Example activity:</i> Establishment of regional pilot projects</p> <p>Activity 2: Undertake priority actions identified at the workshop to enhance collaboration to address common challenges and issues. <i>Example activity:</i> Development of common standards for evaluating efficacy of MPAs</p> <p>Activity 3: Undertake priority actions identified at the workshop to build local, national and international capacity to conserve critical marine and coastal habitats. <i>Example activity:</i> Develop a exchange or internship program among MPA managers</p> <p>Activity 4: Undertake priority actions identified at the workshop to facilitate the future design and establishment of a globally representative system of MPAs</p>		C\$74,000
<p>Action 3: Coordinate and support the MPA network activities</p> <p>Activity 1: Establish and operate the WWW-based MPA network</p>	C\$30,000	C\$30,000
<p>Action 4: Participate in Mapping Marine and Estuarine Ecosystems of North America project activities</p> <p>Activity 1: Coordination and participation in workshop to identify major marine and coastal ecological regions</p>	C\$7,000	C\$7,000
Total Resources Required		C\$148,000

Public Participation

The public will be involved in most aspects of this endeavor, from global network design to local implementation at specific MPA sites. Various sectors of the public will be asked to participate in the workshop. As well, the academic community and nongovernmental organizations involved in marine protected areas will be consulted for their input into establishing the linkages. As the process evolves, general outreach materials will be developed for explaining to a broad audience the benefits that will accrue to marine biodiversity from linking the sites.

Capacity Building

The fundamental purpose of creating an integrated and interactive network of North American MPAs is to build global capacity, sharing information on lessons learned about effective conservation strategies, emerging threats to protected areas, and funding or outreach opportunities. It is anticipated that all members of the network will benefit equally from this exchange.

Expected Results

The North American MPA network will produce two distinct but related results. First, it will create a permanent alliance of MPAs throughout North America that continue to share critical information to improve the efficacy of marine biodiversity conservation efforts at the national, regional and international level. Secondly, it will result in a number of specific cross-cutting conservation initiatives that will enhance the protection of biodiversity among participating sites.

Expected Partners and/or Participants

Two representatives from each country have been named to the steering committee, chosen from government agencies and nongovernmental conservation organizations. In addition, other partners will include the 45–50 participants in the November workshop and other national experts as appropriate. These new partners will represent workshop governmental officials, MPA managers, academia, NGOs, and other sectors.

Linkages to other CEC Projects

This project is closely linked to the Mapping Marine and Estuarine Ecosystems of North America project. The maps produced will serve as the first step in the development of a marine gap-analysis. This analysis will provide important guidance in the development of the MPA network activities.

This project should also be very closely linked to the Strategic Directions for the Conservation of Biodiversity project. The results of the November 1999 MPA workshop should be included in the process of developing the Strategic Plan for the Conservation of Biodiversity.

The North American Marine Protected Areas Network project is also potentially linked to three other CEC projects:

- *Sustainable Tourism in Natural Areas*: Marine Protected Areas are frequently tourism destinations. Promoting sustainable tourism could be an option to generate important resources for conservation.
- *Sound Management of Chemicals (SMOC)*: The SMOC project includes an experts workshop on the pathways of chemical contaminants in the marine environment as part of their 1999 activities. Additionally, Council Resolution 99-02 calls for the development of a North American Regional Action Plan on Environmental Monitoring and Assessment. MPAs are ideal sites to establish monitoring index sites.
- *Cooperation on the Protection of Marine and Coastal Ecosystems*: CEC has worked since 1996 implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in two binational coastal regions in North America: the Gulf of Maine and the Bight of the Californias. Both regions have important marine and coastal conservation programs that could be linked to the North American MPA Network.

Actions 2001

Overview

During the year 2001, the North American Marine Protected Area Network will continue implementing the priorities identified in 1999 and through 2000. The close link with the Mapping Marine and Estuarine Ecosystems of North America project will be continued, preparing the ground for a joint GIS mapping and marine gap-analysis initiative in 2002. The activities identified for 2001 will also help consolidate the Network. By the end of 2001 there will be an evaluation of progress to date.

2001	
To be determined	
Total Resources Required	TBD

Actions 2002

Overview

Activities this year will involve the the development of a GIS-based map of major meso-scale marine and coastal ecological regions, to be followed by a marine gap-analysis. This work will be closely linked to the Mapping Marine and Estuarine Ecosystems of North America project. Gap analysis is a science-based program for identifying the degree to which native animal species and natural communities are represented in the present-day mix of conservation areas. Those species and communities not adequately represented in the existing network of conservation areas constitute conservation “gaps.” Gap-analysis approaches are currently being applied to provide broad geographic information on the status of species and their terrestrial habitats in Canada, Mexico, and the United States. These programs provide managers, planners, scientists, and policy makers with the information they need to make better-informed decisions. Highly successful in the terrestrial environment, this approach can be effectively extended into the marine and coastal areas.

2002	
<p>Action 1: Development of Geographic Information System (GIS)–based map of major meso-scale marine and coastal ecological regions</p> <p>Activity 1: Development of an ArcView- (or ARC/INFO-) based map of major meso-scale marine and coastal ecological regions</p> <p>Activity 2: Overlay of existing marine protected areas in North America (working in close collaboration with appropriate representatives from the Mapping Marine and Estuarine Ecosystems of North America project)</p> <p>Action 2: Initiate a marine gap-analysis</p> <p>Activity 1: Joint workshop of the North American Marine Protected Areas and North American Marine Mapping working groups to begin the marine gap-analysis work.</p> <p>Action 3: Identify priorities for coastal and marine conservation in North America</p> <p>Activity 1: Based on the results of the workshop, produce an action plan that identifies priorities and actions for the conservation of coastal and marine ecosystems in North America.</p>	
Total Resources Required	TBD

2.2.4 North American Biodiversity Conservation Mechanisms

Project Summary

This project is intended to help protect North American bird populations and support the conservation of migratory and transboundary species and their habitats. It is divided into two initiatives: the North American Bird Conservation Initiative (NABCI) and Conservation of Migratory and Transboundary Species in North America. The NABCI will enter into its first year of implementation as the initiative develops its national action plans and selects a model NABCI site; the Conservation of Migratory and Transboundary Species in North America will advance by identifying a pilot initiative in partnership with the Trilateral Committee.

Goals and Objectives

The goal of this project is to establish collaborative actions to protect North American bird populations and support the conservation of migratory and transboundary species and their habitats.

North American Bird Conservation Initiative

The specific objectives are as follows:

- Begin implementation of a coordinated series of initiatives to conserve bird populations in North America, as articulated in the NABCI.
- Establish and bring into operation the administrative body responsible for designing and coordinating national actions within the North American NABCI framework.
- Develop a long-term financial strategy as well as evaluation procedures and performance indicators.

Conservation of Migratory and Transboundary Species

The specific objectives are as follows:

- Publish, disseminate and promote the 1999 report, Conservation Status of Migratory and Transboundary Species in North America.
- In partnership with the Trilateral Committee,
 - facilitate enabling Parties to undertake specific, collaborative actions to conserve migratory and transboundary species of concern; and
 - launch a pilot initiative in support of the conservation of priority species appropriate for collaborative action.

Rationale

The North American Agreement on Environmental Cooperation calls for action to encourage conservation of wildlife and its habitat, and specifically the protection of species in danger of extinction.

North America boasts a remarkable number and variety of wild flora and fauna, and each country is committed to conserving its biological treasures. Joint action between the three countries is necessary to ensure the survival of transboundary species, species that are threatened or endangered, or species that play a critical role in the functioning of ecosystems.

North American Bird Conservation Initiative

Bird populations are important indicators of the overall health of biodiversity because they respond quickly to changes and stresses in ecosystems. Bird conservation priorities will be key to setting the biological and urgency criteria as the Strategic Directions for the Conservation of Biodiversity project focuses on prioritizing ecoregions.

Although international coordinated efforts have begun for certain groups of birds—for example, the North American Waterfowl Management Plan (NAWMP) has been successful in conserving aquatic birds—a similar effort is needed to coordinate the conservation of all bird species in North America. NABCI was launched in response to this need.

In 1996, the Council called for the formulation of an initiative and action plan for cooperative efforts to conserve North American birds based on common goals, objectives and perspectives. In 1999, this mandate was fulfilled with the creation of the NABCI Strategy and Action Plan. The Strategy and Action Plan delineates “broad strategies [that] are essential for the effective conservation of North American birds,” and a specific Action Plan for the CEC to follow in its continued support of NABCI during the next three years. The actions outlined below recognize and build upon the NABCI Strategy and Action Plan, providing the initial impetus to ensure that NABCI is fully implemented.

Conservation of Migratory and Transboundary Species

While each country values its biodiversity, differing regulatory schemes and jurisdictional boundaries complicate effective conservation efforts and calls for close collaboration of wildlife agencies and others interested in conserving wildlife and the habitat upon which wildlife depends. In addition, having a clear understanding of the conservation status of wildlife populations of concern will help determine conservation performance indicators for ecoregions and biological corridors.

Progress to Date

North American Bird Conservation Initiative

The CEC's work on identification of important bird areas was the first step in creating a North American bird conservation initiative. This project brought together organizations from each country working to identify important bird areas and resulted in the identification of more than 150 such areas throughout North America.

In November 1998, more than 125 experts from the three countries met in Puebla, Mexico, to review a concept paper that had been drafted of an action plan for the conservation of North American birds. Based on the feedback provided by these experts, lines of action (or "themes") were defined in the areas of mapping, conservation objectives, monitoring, implementation, and financial support. This allowed the writing of a strategy for NABCI and an action plan for the CEC initiative. These documents were completed and subsequently approved by Council in June 1999. In Resolution 99-03, Council also reiterated its commitment to North American birds by maintaining continued support of NABCI for a three-year period.

In 1999, the CEC established NABCI trinational and national steering committees and national coordinators, launched a bird-related pilot project of the North American Biodiversity Information Network (NABIN), and activated NABCI Net, the initiative's web-based information system.

Efforts also were made to classify protected species and natural phenomena in North America according to the ecoregions identified in the CEC report *Ecological Regions of North America*. In 1999, a US follow-up group from Puebla developed the report *A Proposed Framework for Delineating Ecologically-based Planning, Implementation, and Evaluation Units for Cooperative Bird Conservation in the US*—the first step in the process for North America. Subsequently, a working draft map of Bird Conservation Regions of North America was created, outstanding issues were resolved and a decision was made to use this map for the next three years. After this three-year period, the map would be open to another round of revisions.

Conservation of Migratory and Transboundary Species

The second initiative under this project focuses on facilitating cooperation on endangered migratory and transboundary species. During the Experts Workshop of 1999 and the subsequent conference calls, representative officials from the three governments came to a consensus as to the species of common conservation concern to be studied. For this stage in the project, the Parties chose terrestrial bird and mammal species. In 1999, the CEC prepared a report drawing upon the national inventories (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*—Conabio, the US Fish and Wildlife Service, and the Canadian Wildlife Service, among others) as well as additional information provided by conservation organizations and scientific experts on endangered and threatened species. This report, *Conservation Status of Transboundary and Migratory Species in North America*, addresses the conservation status and the associated conservation programs of transboundary and migratory species, with special emphasis on species of concern in each country. The establishment of priorities for joint action in the recovery of threatened or endangered species and populations in North America will be aided by the development of this report. It will also serve as a tool for identifying priority ecoregions and conservation performance indicators.

Actions 2000

North American Bird Conservation Initiative

Overview

The CEC will initiate implementation of the Council-approved NABCI Strategy and Action Plan. This will commence with the development of national efforts within the overall North American framework. The CEC will support an on-site model program, develop a long-term financial plan, and enhance NABCI communication and outreach activities.

2000		
<p>Action 1: Implementation of NABCI at a national scale: facilitate the administration and development of national strategies and action plans</p> <p>Activity 1: The CEC will directly support national steering committees and national NABCI coordinators to establish and begin to implement the national strategies and action plans. The funds allocated to this activity will: 1) support the establishment of three national coordinators, including administrative support; and 2) coordinate meetings for each of the three national steering committees in their creation of the national strategies and action plans (to be in place by 1 May 2000)</p> <p>The national strategies and action plans will include the strategies laid out in the NABCI Strategy and Action Plan, including: 1) comprehensive biological planning; 2) enhanced partnerships for implementation; 3) strong scientific foundation and evaluation; 4) international cooperation; and 5) sufficient resources</p>	C\$185,000	C\$185,000
<p>Action 2: As described in Council Resolution 99-03, NABCI will identify model programs established to employ conservation strategies and approaches developed for North America in priority regions</p> <p>Activity 1: Organize a trinational workshop to define NABCI model programs (projects and regions)</p> <p>Activity 2: Facilitate workshops (two or three, exact number dependent on outcome of Activity 1) to develop the action plans for NABCI model ecoregions</p>	C\$47,000 C\$62,000	C\$109,000
<p>Action 3: Long-term financing strategies and mechanisms</p> <p>Activity 1: Working closely with the Financing and the Environment project of the CEC, produce a financial plan for NABCI, developing its funding capacity and financial mechanisms (including mechanisms linked to related environmental initiatives)</p> <p>Activity 2: Organize meetings with bilateral and multilateral financial organizations to help support NABCI</p>	C\$6,000 C\$6,000	C\$12,000
<p>Action 4: Communication and outreach actions</p> <p>Activity 1: Identify NABCI Net user needs, to enhance usefulness of NABIN</p> <p>Activity 2: Enhance the current information system (NABCI Net) to accommodate a broader sharing of knowledge</p>	C\$6,000 C\$13,000	C\$19,000
Total		C\$325,000

Conservation of Migratory and Transboundary Species

Overview

In the year 2000, the CEC will publish, disseminate and promote the report developed in 1999, *Conservation Status of Migratory and Transboundary Species in North America*. Its conclusions will contribute to the establishment of priority ecoregions for the Strategic Directions for the Conservation of Biodiversity project. The CEC will then provide a forum for the three countries to build partnerships and define actions on priority species of concern.

2000		
Action 5: Publish and release <i>Conservation Status of Migratory and Transboundary Species in North America</i>		C\$59,000
Activity 1: Edit, translate, publish and release the report	C\$59,000	
Action 6: Design and implement pilot initiative to facilitate conservation of migratory and transboundary species and their habitats		C\$21,000
Activity 1: Bring conclusions of the report into the Strategic Directions for the Conservation of Biodiversity project. Present this information to the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. Concerning migratory and transboundary species, seek an agreement with the Trilateral Committee as to the possible next steps to be taken	C\$6,000	
Activity 2: Support pilot initiative	C\$15,000	
Total		C\$80,000
Total Resources Required		C\$405,000

Public Participation

There is widespread recognition that biodiversity and its aquatic or terrestrial habitats will be protected according to their perceived value. A considerable proportion of priority ecological areas in the North American region is in private hands. Participation of the owners of those lands or waters will thus be crucial for the conservation of North American species, their habitats, and other natural phenomena. This project will identify mechanisms for nongovernmental participation in the conservation of biodiversity, both in protected natural areas and in sites not protected by government decrees or regulations.

Capacity Building

Within the report *Conservation Status of Migratory and Transboundary Species in North America*, needs and potential partners for capacity building, particularly in government agencies, will be identified. The results of this report will be taken into account in the development of the Strategic Plan for the Conservation of Biodiversity.

Expected Results

North American Bird Conservation Initiative

- In its first year of operation, NABCI will serve as the focal point for coordinating bird conservation initiatives of continental importance.
- National action plans and NABCI model program action plans will be developed, reviewed and initiated, providing a basis for evaluating progress toward a coordinated effort to protect birds in North America.
- A financial plan for NABCI will be produced, a fundraising campaign launched and a round table with bilateral and/multilateral financial organizations held.
- Improved collaborative tools for NABCI constituencies will be made available through the enhancement of the NABCI web site (NABCI Net) and NABIN, as well as through the development of a NABCI vision/marketing document.

Conservation of Migratory and Transboundary Species

- The report *Conservation Status of Migratory and Transboundary Species in North America* will be published, informing interested groups and individuals about the needs and opportunities for cross-border cooperation.
- Priority ecoregions will be defined (Strategic Directions for the Conservation of Biodiversity project), based upon—among other criteria—the results of the *Conservation Status* report, which places special consideration on species that are endangered or facing extinction.
- In partnership with the Trilateral Committee for Wildlife and Ecosystem Conservation and Management, concrete action will be taken to conserve migratory and transboundary species of concern.

Expected Partners and/or Participants

North American Bird Conservation Initiative

The following agencies and organizations have played an important leadership role in building NABCI, and are expected to continue as partners and/or participants in the future: the American Bird Conservancy, Conabio, the US Environmental Protection Agency, *Dirección General de Vida Silvestre* for the *Instituto Nacional de Ecología*, the Long Point Bird Observatory, Bird Studies Canada, the Tennessee Wildlife Resources Agency, the National Audubon Society, the US Fish and Wildlife Service, the Canadian Nature Federation, the Canadian Wildlife Service, and the *Universidad de San Nicolás de Hidalgo, Michoacán*. In addition, there are many other organizations in the three countries making important contributions to this endeavor, including the Wildlife Management Institute and the North American Wetlands Conservation Council (Canada). Other partners for this project—too numerous to mention here—include governmental agencies, NGOs, local communities, the forest products industry, as well as universities and scientific research centers involved in the Puebla meeting.

Conservation of Migratory and Transboundary Species

For the Conservation of Migratory and Transboundary Species initiative, the Canadian Wildlife Service, the *Dirección General de Vida Silvestre* for the *Instituto Nacional de Ecología*, the US Fish and Wildlife Service, the Trilateral Committee for Wildlife and Ecosystem Conservation and Management, as well as the Species Survival Commission (SSC) of IUCN are expected to play important developmental roles.

Linkages to other CEC Projects

North American Bird Conservation Initiative

The results of the Financing and the Environment project will aid in the development a financial plan for NABCI. Further development of the North American Biodiversity Information Network (NABIN) project will: a) be carried out in consultation with NABCI users so as to enhance the usefulness of NABIN, and b) include the potential linkages to conservation and ecological institutions involving NABCI, further broadening the information resources of NABIN.

Conservation of Migratory and Transboundary Species

Linkages to other CEC projects include applying the results from the report *Conservation Status of Migratory and Transboundary Species in North America* in prioritizing ecosystems for the Strategic Directions for the Conservation of Biodiversity project.

Actions 2001–2002

North American Bird Conservation Initiative

Overview

In the years 2001–2002, the CEC will continue its support of NABCI, with the emphasis changing from building NABCI institutional support to implementing on-the-ground efforts and legal and policy recommendations.

2001	
<p>Action 1: NABCI at a national scale: facilitating the implementation of national strategies and action plans</p> <p>Activity 1: Organize a meeting of the Trinational Steering Committee to review the national strategies and action plans</p> <p>Activity 2: Provide support to national steering committees and national coordinators to continue the implementation of national strategies and action plans</p> <p>Action 2: Implementation of NABCI model programs</p> <p>Activity 1: Support first NABCI model program through the establishment of a team by ecoregion or theme. Develop and begin the implementation of a strategic plan for the model program</p> <p>Action 3: Financial support of NABCI</p> <p>Activity 1: Continue fund raising efforts for NABCI at the trinational, national and model program levels</p> <p>Action 4: Communication and outreach</p> <p>Activity 1: Support the creation of a vision/marketing document that encompasses all bird initiatives in North America</p> <p>Activity 2: Link conservation and ecological institutions, which have information resources relevant to the NABCI model program, to NABIN</p>	<p>TBD</p>
Total	TBD

2002	
<p>Action 1: NABCI at a national scale: facilitating the implementation of national strategies and action plans continued Activity 1: TBD—activities defined in the national strategies and action plans (produced in the year 2001)</p> <p>Action 2: NABCI model programs: implementation Activity 1: Support second and third NABCI model program through the establishment of teams by ecoregion or theme. Develop and begin the implementation of action plans</p> <p>Action 3: Financial support Activity 1: Continue fund-raising efforts for NABCI at the trinational, national and model program levels</p> <p>Action 4: Communication and outreach Activity 1: Support the publication and promotion of the marketing document that encompasses all bird initiatives in North America Activity 2: Continue to link conservation and ecological institutions, which have information resources relevant to the NABCI model program, to NABIN</p>	
Total Resources Required	TBD

Conservation of Migratory and Transboundary Species

The actions and activities for the years 2001–2002 are contingent on the agreement between the CEC and the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. They may include—but are not limited to—those that: (a) promote the cooperation of the Parties to apply the instruments and mechanisms for the recovery of identified priority species; and (b) involve the development of a trinational strategy to improve information, understanding and awareness of biodiversity, encouraging better decision making and a qualitative and quantitative improvement in public participation in activities to maintain, conserve, restore and sustainably use biodiversity.

2001–2002	
Total Resources Required	TBD

Improving Information on North American Biodiversity

Objective

The objective of this program is to create a North American network of biodiversity information through the interconnection of previously independent systems of biodiversity data. Through this, solutions can be found to problems associated with data incompatibility and accessibility. The problem of data incompatibility can be solved by the creation of an Internet-based system to retrieve, integrate and present data residing in different computer systems and organized under different taxonomies. Problems concerning accessibility can be addressed by providing free and unrestricted public access to biodiversity information.

Project

This program will be implemented initially through the following project:

- *The North American Biodiversity Information Network*

2.3.1 North American Biodiversity Information Network

Project Summary

This project will assist institutions and agencies that collect, manage or use biodiversity data collaborate to provide more effective information access throughout North America. The project will also link the North American Biodiversity Information Network (NABIN) with other national and international initiatives, such as the Canadian Biodiversity Information Network (CBIN), the US National Biological Information Infrastructure (NBII), the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio), the Inter-American Biodiversity Information Network (IABIN) and the Convention on Biological Diversity Clearinghouse Mechanism (CHM), in the creation of a North American and worldwide biodiversity information network that is publicly accessible and free.

The project also addresses issues related to the development of NABIN, such as the development of data standards and protocols for the exchange of information. The CEC will convene and facilitate discussions among key public and private institutions that collect, manage and use biodiversity data. The utility and effectiveness of the project will be demonstrated through an ongoing project that interconnects institutions with significant information resources on biodiversity. This emerging North American network will interconnect with national and international projects, thereby participating in a worldwide biodiversity information system.

The development and implementation of NABIN is a long-term project that will require ongoing development. Continued CEC stewardship through the year 2002 would ensure that the project maintains its trinational perspective and objectives. It will also contribute to the implementation of trinational strategies concerning public participation and information dissemination.

Goals and Objectives

The primary goal of the project is to assist institutions and agencies that collect, manage or use biodiversity data to collaborate on providing more effective access-to-information across North America.

The project focuses on the development of a North American Biodiversity Information Network, which will:

- create a distributed collaborative network of biodiversity information;
- expand the user base and direct users to new sources of data by including other taxa;
- promote the exchange of biodiversity data among private and public entities;
- identify gaps in existing data and knowledge; and
- provide leadership to national, region and global biodiversity initiatives (NBII, IABIN, CHM, etc.).

Rationale

Accessible and accurate scientific information is necessary for good conservation management. Many environmental systems in North America transcend boundaries, and information about them needs to be shared.

There is no comprehensive understanding at the North American level of what biodiversity data exist, where and how reliable they are, and how they may be accessed. Existing biodiversity data are scattered in various formats and only sometimes documented. Numerous initiatives by federal, state, provincial and nongovernmental 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. There is no effort to identify the existence of a data set and the means to acquire access to it on the North American level. NABIN seeks to fill this void.

Sharing and accessing biodiversity data at such a broad level can help avoid environmental conflicts and facilitate more cohesive cooperative actions. North America-wide collaboration in making biodiversity data accessible will produce economies of scale and avoid duplication of effort. Finally, a regional initiative will enable North America to provide leadership in global efforts to make biodiversity information better organized and more accessible.

Progress to Date

In the first phase of the project, a pilot study on birds was initiated. This pilot study has:

- identified the issues associated with linking diverse information through translation to a common set of names;
- reviewed conservation status information used to set inventory priorities and establish conservation goals; and
- reviewed issues associated with meta-data, including documenting sources and establishing the quality of data in the network.

A beta-distributed query system (search engine) called Species Analyst, which can access multiple databases residing on remote and separate servers, has been completed. To date, the Species Analyst can allow concurrent searching of at least twelve major collection databases located throughout North America. The system is also configured with geo-spatial software, allowing users to obtain data on North American species' distribution, migration, etc. The United States National Science Foundation has provided an initial grant of US\$500,000 that will allow the system to expand its focus and objectives. Furthermore, NABIN activities have catalyzed a number of proposals that have been successful in receiving funding:

Funding Source Activities	Funded	Amount
NSF Database Activities in Biology	Development of prototype, five-institutional node North American distributed data network, focusing on birds; software/protocol development and data integration.	US\$500,000
NSF Database Activities in Biology	Development of standards for integration of data under the Z39.50 protocol; client and host software development and institutional consensus building.	US\$100,000
NSF Knowledge and Distributed Intelligence	Research applications of the fusion of biological data, predictive algorithms and GIS perspectives on biodiversity; host and client software development and institutional consensus building.	US\$2,000,000
World Bank	Under the aegis of IABIN, train users in the implementation of NABIN technology to facilitate the interconnection of institutions.	US\$50,000

Actions 2000

Overview

The primary objectives of NABIN during 2000–2002 will be to integrate use of the Species Analyst with other CEC projects, thereby enhancing the quality of their data sets and information resources. For example, NABIN will cooperate with the North American Bird Conservation Initiative (NABCI) by linking it with the Species Analyst. As a result of this collaboration, NABCI participants will have a resource of immediate value and use to assist them in reaching their objectives. NABIN will continue to collaborate with other national and international initiatives. First, NABIN will offer its knowledge and expertise to IABIN so as to optimize resources and projects that are of benefit to the North American region. An example of this ongoing collaboration is a grant of US\$50,000 from the World Bank under the aegis of IABIN to train systems personnel in the implementation NABIN technology. Another example will be NABIN's participation in an IABIN invasive-species pilot project. NABIN technology will allow users to interconnect databases on invasive species and undertake geospatial analysis of the data. The databases will include information on aquatic and terrestrial invasive species and the institutions that provide it. A list of invasive species experts from the three countries will be created. The geospatial analysis will include mapping of marine and terrestrial ecosystems, species at risk, and the major pathways of aquatic invasive species to support reduction and control efforts. The possibilities of interconnecting sources of information (such as web sites) related to the existing education and outreach efforts on aquatic invasive species reduction and control will be explored, and their gaps analyzed. Additional funding sources will be sought to pursue the policy issues identified.

Through this initiative, it will be possible to eliminate duplication of effort and pool resources and expertise, while offering policy makers and the public a valuable and needed environmental management tool. As added value, because NABIN users can access information on biodiversity located in regions other than North America, it will be perceived as a key regional initiative supporting hemispheric and global initiatives. Finally, NABIN will continue development of the Species Analyst: new institutions will be connected, NGOs will be invited to participate, most notably the Nature Conservancy, and new taxonomic information tools, such as the Integrated Taxonomic Information System, will be made available to the public.

2000		
Action 1: Integrate NABIN information resources with related CEC program areas		C\$14,000
Activity 1: Increase the usability of the Species Analyst to assist CEC project activities and goals	C\$7,000	
Activity 2: Introduce the Species Analyst to participants of the North American Bird Conservation Initiative	C\$7,000	
Action 2: Increase collaboration with and participation in IABIN, the CHM and other initiatives		C\$73,000
Activity 1: Increase knowledge-sharing with IABIN and develop joint initiatives for North America, including, for example, pollinators, health, technical standards or other areas	C\$15,000	
Activity 2: Develop joint IABIN/NABIN strategies and goals for North America	C\$7,000	
Activity 3: Participate and support an invasive-species project initiated by IABIN; use the Species Analyst to create the North American component of an invasive-species database (that includes marine invasive species)	C\$44,000	
Activity 4: Assist in the development of other international initiatives by offering NABIN expertise and technology	C\$7,000	
Action 3: Support the expansion and user base of the Species Analyst		C\$90,000
Activity 1: Increase institutional consensus and data integration by meeting with institutional representatives and policy makers; continue support of, and interconnection with, the Integrated Taxonomic Information System (ITIS) and other similar systems	C\$30,000	
Activity 2: Interconnect other institutions to the Species Analyst, particularly those rich in North American biodiversity information	C\$30,000	
Activity 3: Initiate discussion with NGOs (TNC, WRI, etc.) to interconnect their information resources to the Species Analyst, thereby fostering collaboration among the museum and conservation communities	C\$30,000	
Total Resources Required		C\$177,000

Public Participation

Public participation in the objectives of NABIN is ensured through the creation of a distributed database of biodiversity information. Unrestricted and free access to biodiversity information further ensures public participation by offering the North American public the resources needed for research, policy making and community empowerment. Indeed, NABIN, through its emphasis on a holistic approach to data sharing and diffusion, gives the North American public the tools to analyze environmental issues directly affecting their communities and region.

Capacity Building

NABIN fosters linkages among previously independent research and public communities by interconnecting their information resources. This unrestricted and free interconnection of biodiversity information offers North American communities and governments the means to better choose among policy options and modes of implementation. NABIN also offers a feasible model for other environmental data communities to integrate and share information. In summary, by giving interested stakeholders access to more complete information, NABIN ensures: better tools to assist policy makers, enhanced environmental management, the ability of all communities to understand and participate in an environmental issue, increased collaboration and sharing of expertise, and a template for other information projects and initiatives.

Expected Results

The project will offer national, regional and international groups the knowledge to deal with problems such as meta-data, databases holding incomplete information and residing on different platforms, and issues of copyright, public access and collaboration with other projects. In addition, the project will also offer a means to integrate diverse data, thereby giving users a holistic view. And last, because of the collaborative emphasis of the project with other initiatives, it will foster greater sharing of expertise and information.

In the 2000–2002 phase of this ongoing project, efforts will be directed toward incorporating other taxa into the distributed query system. In this manner, the system will offer:

- a holistic perspective of North American species;
- a means to integrate databases containing complementary information or other taxa residing on different servers, platforms and regions;
- a solution to problems associated with taxonomic authority;
- meta-data information and geo-spatial analysis;
- more optimal use of CEC project data and information;
- unrestricted access to North American biodiversity information; and
- interconnection to other types of data.

In the creation of a North American and worldwide biodiversity information network, the project will work with national and international initiatives such as the Canadian Biodiversity Information Network (CBIN), National Biological Information Infrastructure (NBII), *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio), the Inter-American Biodiversity Information Network (IABIN) and the Convention on Biological Diversity Clearinghouse Mechanism (CHM) by:

- identifying how NABIN can assist the development of national and international initiatives;
- offering national initiatives a forum for discussion on North American issues and objectives;
- offering a viable and functioning system for use by national and international initiatives;
- sharing technological know-how and experience with other national and international initiatives;
- collaborating on work so as to avoid duplication of efforts; and
- discussing how national, regional and international projects can be more tightly integrated.

Expected Partners and/or Participants

- Canadian Biodiversity Information Network (CBIN)
- National Biological Information Infrastructure (NBII)
- *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio)
- Inter-American Biodiversity Information Network (IABIN)
- University of Kansas
- Other initiatives such as Species 2000, the Integrated Taxonomic Information System (ITIS) and the Global Biodiversity Information Facility (GBIF)

Linkages to other CEC Projects

NABIN links closely with the current effort to protect migratory bird habitat in North America by providing the public with access to extensive databases on bird taxonomy. Future applications of NABIN could link to virtually all CEC projects by providing project-specific data correlations and applications for otherwise unrelated data sets.

Actions 2001

2001		
Action 1: Support other CEC programs where appropriate		C\$22,000
Activity 1: Interconnect CEC project information data with NABIN (PRTR, Air Quality, Emerging Trends)	C\$22,000	
Action 2: Increase collaboration and participation in IABIN, the CHM and other initiatives (The Global Biodiversity Information Facility, Species 2000, etc.)		C\$65,000
Activity 1: Increase knowledge-sharing with IABIN and develop joint initiatives for North America	C\$7,000	
Activity 2: Participate and support an invasive species project initiated by IABIN; use the Species Analyst to create an invasive species distributed database	C\$44,000	
Activity 3: Assist in the development of other international initiatives by offering NABIN expertise and technology	C\$14,000	
Action 3: Support the ongoing development of the Species Analyst		C\$90,000
Activity 1: Increase institutional consensus and data integration by meeting with institutional representatives and policy makers; continue support of and interconnection with the Integrated Taxonomic Information System (ITIS) and other similar systems	C\$30,000	
Activity 2: Interconnect other institutions to the Species Analyst, particularly those rich in North American biodiversity information	C\$30,000	
Activity 3: Initiate discussion with NGOs (TNC, WRI, etc.) to interconnect their information resources to the Species Analyst, thereby fostering collaboration among the museum and conservation communities	C\$30,000	
Total Resources Required		C\$177,000

Pollutants and Health

Goals

The mission of the program area, Pollutants and Health, is to establish cooperative initiatives to prevent or correct adverse effects, on a North American scale, from pollution to human and ecosystem health. Guidance on methods to accomplish this mission is embodied within the language of Article 10 of NAAEC. 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 four 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

Four programs and their subsidiary projects specifically address the protection of human and ecosystem health. The program also includes a North American Symposium on Children's Health and the Environment.

Cooperation on North American Air Quality Issues

- Facilitating Trilateral Coordination in Air Quality Management
- Developing Technical and Strategic Tools for Improved Air Quality in North America
- Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors

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
- First North American Symposium on Children's Health and the Environment in North America

Cooperation on North American Air Quality Issues

Objectives

A major component of protecting human and ecosystem health is ensuring the quality of the air, something that is of equal importance to all three North American countries. It is also an area in which the CEC can play a highly significant role. Although there are a number of binational initiatives addressing air quality issues along the two borders between the North American countries, the CEC has a unique mandate to address these issues in a trinational context in ways that also coordinate with and enhance ongoing binational and international activities.

In response to this challenge, the goals established for the CEC air program are, first, to further cooperation and coordination between the air quality management systems of the three North American countries and, second, to identify and address contemporaneous air quality issues having trinational implications. Achievement of these goals will result in the ability of the three countries to work cooperatively in a manner that recognizes, respects, and accommodates their sovereignty while ensuring sufficient data comparability and compatibility to facilitate informed discussion and mutual cooperation. This will allow issues of joint concern to be analyzed on the basis of real-world air sheds up to and including North America as a whole. Remedial approaches can then be developed which, while unique to each Party, would work in harmony toward the desired resolution.

Projects

These two goals will be achieved through three projects:

- *Facilitating Trinational Coordination in Air Quality Management*
- *Developing Technical and Strategic Tools for Improved Air Quality in North America*
- *Trinational Air Quality Improvement Initiative: North American Trade and Transportation Corridors*

3.1.1 Facilitating Trinational Coordination in Air Quality Management

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. To accomplish these tasks, the project is divided into four initiatives:

- Production and follow-up to the report *The Air Pollution Management Systems of the Countries of North America*
- North American air quality web site
- Sharing technical information
- Exchange program for air quality professionals

Goals and Objectives

The goal of this project is to improve both the exchange of technical information and 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; and
- improving the overall capacity of air quality management.

Rationale

The development of North American strategies to reduce the long-range transport of pollution through the atmosphere can best be accomplished through cooperative partnerships among air quality management agencies. Increased knowledge and understanding of the priorities and programs of the various air agencies in North America is the key 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.

Progress to Date

During 1999, the final draft of the reference document *The Air Pollution Management Systems of the Countries of North America* was prepared. The final editing, translating, and printing were scheduled for the last quarter of 1999 and the first quarter of 2000 with a publication goal of 1 April 2000. Also during 1999, letters were sent to the federal, state/provincial, and local/municipal air pollution control agencies in each of the countries. These letters requested a list of air quality improvement opportunities that would benefit from a technical exchange visit of one week or less to an air quality management agency within one of the other two countries. These requests have been prioritized and the resulting exchanges started in the second half of FY 1999. This is the initial year of the exchange program for air quality professionals, which is envisioned to be a perennial activity for the CEC. Preparations for the first annual meeting of North American air pollution management officials were initiated in 1999. Agreement was reached on the venue, location and date for the first meeting, which will be held in the United States. A trilateral agenda committee will be put together to formalize the topics and agenda for the first meeting. Conceptual discussions have been held in regard to the venue for the second meeting, to be held in Canada in 2001. Support is being provided to Mexico to establish an annual meeting of Mexican air officials, which will subsequently serve as the venue for the North American air pollution management officials meeting in 2002.

Actions 2000

Overview

Actions in the four basic components of this project can be broken down as follows:

Report: *The Air Pollution Management Systems of the Countries of North America*

In late 1998, and during 1999, efforts were begun on the development of a comprehensive report, *The Air Pollution Management Systems of the Countries of North America*. This report will foster a greater awareness and understanding of the other countries' air quality management systems. The resultant improvement in understanding will broaden the ability of the entities involved in air quality matters within each of the countries to work in cooperation and coordination with their counterparts in the other North American countries. It is envisioned this report will serve as an important reference document for all parties interested in air quality management within North America (public, private, academia, etc.). This initiative is included in the three-year plan so the effort that started in 1998 will continue to completion with the publication of the report by the end of the first quarter of 2000. While this initiative is scheduled to end at that time, another, designed as a follow-up to it (see below) will then commence to address areas of systemic incompatibility noted in the report.

North American Air Quality Web Site

This initiative is designed to develop a regional air quality web site as a central location for information pertaining to air quality issues in North America. This could result in a site that is dedicated solely to North America's air quality or it could be the North American component of a more globally oriented air quality web site. The latter form is dependent upon the opportunities for cosponsorship and funding of the site. It is envisioned that the site, by including the earlier described CEC report, will provide a solid basic understanding of the system(s) of air quality management employed in North America. Through an organized index of electronic links to other sites and databases, this site will provide the user a single location from which virtually every aspect of air quality management in North America can be investigated. This will create a greater opportunity for decision makers, scientists, and the public to become better informed, and enable the public, particularly, to participate more meaningfully in the decision-making processes available.

Sharing Technical Information (North American Air Pollution Management Officials Meeting)

The first annual meeting of North American air pollution management officials will be held in the United States in April 2000. This meeting will be sponsored by the CEC with the spring meeting of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) serving as the host venue. The location of this annual meeting will rotate among the three countries of North America. During the year, plans for a Canadian venue to host the meeting in 2001 will be finalized. Plans for a Mexican venue will be begun in preparation for the meeting in 2002. This annual meeting of North American air pollution management officials will provide opportunities for the sharing of air quality improvement strategies and technical/technological information. Such opportunities for professional interaction will also help develop scientific collaboration between the staff of the various agencies.

The CEC will also support efforts to include fine particulate data from Mexico City for discussion at the NARSTO fine particulate symposium, which will include participation by Environment Canada, the US Environmental Protection Agency (EPA), the US Department of Energy and Semarnap (Action 2).

Exchange Program for Air Quality Professionals

This exchange program, begun in 1999, provides opportunities for technical and planning staff to work for short periods of time with their counterparts from one of the other North American countries. These on-site, one-on-one working opportunities will allow the exchange of knowledge to occur on specific issues of importance to each country. Ambient monitoring, impact and back-trajectory modeling, inventorying of emissions, and smoke management programs are examples of such issues of importance. This program will improve 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. It will also improve opportunities for intra-continental coordination as a result of a greater understanding of the techniques employed by each country, and increased familiarity among staff members. CEC will again poll each of the Parties to update the list of areas of need. CEC will then search existing programs at the local/municipal, state/provincial, and federal levels to identify exchange opportunities that will address those needs. The CEC will give preference to exchange opportunities that address air quality issues of North American concern. It is expected that during 2000 this program will be able to support exchange opportunities for up to 10 individuals for an overall total of 50 days.

2000		
Action 1: Presentation of final publication of <i>The Air Pollution Management Systems of the Countries of North America</i>		C\$117,000
Activity 1: Complete translation, editing, and printing	C\$117,000	
Action 2: Support Mexican participation in the NARSTO symposium, and for the inclusion of fine particulate data from Mexico City		C\$14,000
Activity 1: Provide transportation costs for the participation of Mexican researchers in the NARSTO symposium	C\$4,000	
Activity 2: Provide analytical and research support for Mexico City study on fine particulate matter	C\$10,000	
Action 3: Develop air quality web site		C\$45,000
Activity 1: Design web site	C\$15,000	
Activity 2: Input required data and activate web site	C\$30,000	
Action 4: Provide support for meeting of North American air pollution management officials		C\$128,000
Activity 1: Assist in selection of topics and development of agenda	C\$0	
Activity 2: Provide for interpretation at meeting	C\$22,000	
Activity 3: Facilitate attendance of Mexican and Canadian officials	C\$102,000	
Activity 4: Secure venue and prepare for 2001 meeting	C\$4,000	
Action 5: Exchange program for air quality professionals		C\$69,000
Activity 1: Development of updated list of requests	C\$0	
Activity 2: Identification and facilitation of exchange opportunities, including travel, accommodation, meals and local transportation.	C\$69,000	
Total Resources Required		C\$373,000

Public Participation

The focus of this project is to increase partnership among air quality officials and scientists. Nonetheless, it creates the opportunity for the public to become more informed and better able to be involved in public policy issues related to transboundary air pollution through the establishment of a North American air quality web site.

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.

Expected Results

Upon the completion of these initiatives, it is expected that the North American air quality management agencies will have a much improved level of knowledge of one another—resulting in improved interagency communications and interactions, better mechanisms to readily exchange technical data among themselves, and greater opportunities to cooperatively develop strategies to address air quality issues of common concern.

Expected Partners and/or Participants:

Environment Canada, Canadian Council of Ministers of the Environment (CCME), Greater Vancouver Regional District (GVRD), Montreal Urban Community (MUC), Semarnap (through INE and Profepa), Mexican State and Municipal Air Pollution Control Agencies, US EPA, State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO).

Actions 2001**Overview****Follow-up to *The Air Pollution Management Systems of the Countries of North America***

This initiative is designed to address those areas of systemic incompatibility noted in CEC's *The Air Pollution Management Systems of the Countries of North America*, and identify approaches for resolution. Initially, those areas of incompatibility that are noted will be prioritized. Expert advisory panels, specific to each area of incompatibility, will then be formed to develop approaches for resolution. The first priority area of incompatibility is scheduled to be addressed in 2000. Two more areas of incompatibility will be addressed during 2001.

North American Air Quality Web Site

As described previously, a North American Air Quality web site is scheduled for development during 2000. Site maintenance and upgrading will be required for 2001 and beyond on an annual basis to ensure the site provides current information. This site is intended to give the user an understanding of the system(s) of air quality management employed in North America and, through "hot" links to other sites and databases, will provide a single location from which virtually every aspect of air quality management in North America can be investigated. This will provide important information for decision makers, scientists, and the public, enabling ordinary citizens, particularly, to participate more meaningfully in decision making.

Annual Meeting of North American Air Pollution Management Officials

The second annual meeting of North American air pollution management officials will be held in Canada in 2001 and will be sponsored by the CEC. As the national location rotates annually, during the year, plans for a Mexican venue to host the meeting in 2002 will be made. This annual meeting of North American air pollution management officials will provide opportunities for the sharing of air quality improvement strategies and technical/technological information. Such opportunities for professional interaction will also help develop scientific collaboration between the staff of the various agencies. The CEC will continue to actively seek out existing venues to host upcoming meetings in Canada and Mexico.

Exchange Program for Air Quality Professionals

This exchange program, which commenced in 1999, provides opportunities for technical and planning staff to work for short periods of time with their counterparts from one of the other North American countries. These on-site, one-on-one working opportunities allow the exchange of knowledge to occur on specific issues of importance to each country. Ambient monitoring, impact and back-trajectory modeling, inventorying of emissions, and smoke management programs are examples of such issues of importance. This program will improve 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. It will also improve opportunities for intra-continental coordination as a result of a greater understanding of the techniques employed by each country, and increased familiarity among staff members. CEC will again poll each of the Parties to update their lists of areas that would benefit from technical exchange visits. CEC will then search existing programs at the local/municipal, state/provincial, and federal levels to identify exchange opportunities that will address those requests. It is expected that during 2001 this program will be able to support exchange opportunities by paying for travel and per diem costs for up to 20 individuals for a total of 100 days.

2001	
<p>Action 1: Follow-up to <i>The Air Pollution Management Systems of the Countries of North America</i> Activity 1: Formation of expert advisory panel(s) Activity 2: Address area of incompatibility—priority two, subject TBD Activity 3: Address area of incompatibility—priority three, subject TBD Activity 4: Develop written report listing recommended actions for governments</p>	C\$220,000
<p>Action 2: Maintain North American air quality web site</p>	C\$15,000
<p>Action 3: Provide support for meeting of North American air pollution management officials Activity 1: Assist in selection of topics and development of agenda Activity 2: Provide for interpretation at meeting Activity 3: Facilitate attendance by Mexican, US, and Canadian officials Activity 4: Secure venue and prepare for 2002 meeting</p>	C\$180,000
<p>Action 4: Continued support for exchange program for air quality professionals Activity 1: Development of updated list of requests Activity 2: Identification and facilitation of exchange opportunities</p>	C\$103,000
Total Resources Required	C\$518,000

Actions 2002

Overview

North American Air Quality Web Site

As described previously, a North American Air Quality web site is scheduled for development during 2000. Site maintenance and upgrading will be required in subsequent years to ensure the site provides contemporaneous information. It is envisioned that this site will provide an understanding of the system(s) of air quality management employed in North America and, through an organized index of electronic links to other sites and databases, will provide the user with a single location from which virtually every aspect of air quality management in North America can be investigated. This will create a greater opportunity for decision-makers, scientists, and the public to become better informed, and enable the public, particularly, to participate more meaningfully in the decision-making processes available.

Annual Meeting of North American Air Pollution Management Officials

The third annual meeting of North American air pollution management officials will be held in Mexico in 2002. This meeting will be sponsored by the CEC with a yet-to-be-determined Mexican venue serving as the host. The location of this annual meeting is rotated among the three countries of North America. During the year, plans for the meeting in 2003 in conjunction with the STAPPA/ALAPCO meeting will be finalized. This annual meeting of North American air pollution management officials will provide opportunities for the sharing of air quality improvement strategies and technical/technological information. Such opportunities for professional interaction will also help develop scientific collaboration between the staff of the various agencies.

Exchange Program for Air Quality Professionals

This exchange program, begun in 1999, provides opportunities for technical and planning staff to work for short periods of time with their counterparts from one of the other North American countries. These on-site, one-on-one working opportunities allow the exchange of knowledge to occur on specific issues of importance to each country. Ambient monitoring, impact and back-trajectory modeling, inventorying of emissions, and smoke management programs are examples of such issues of importance. This program will improve 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. It will also improve opportunities for intra-continental coordination as a result of a greater understanding of the techniques employed by each country, and increased familiarity among staff members. CEC will again poll each of the Parties to update their lists of requests. CEC will then search existing programs at the local/municipal, state/provincial, and federal levels to identify exchange opportunities that will address those requests. It is expected that during 2002 this program will be able to support exchange opportunities by paying for travel and per diem costs for up to 20 individuals for a total of 100 days.

2002	
Action 1: Maintain North American air quality web site	C\$15,000
Action 2: Provide support for meeting of North American air pollution management officials Activity 1: Assist in selection of topics and development of agenda Activity 2: Provide for interpretation at meeting Activity 3: Facilitate attendance by Mexican, US, and Canadian officials Activity 4: Secure venue and prepare for 2003 meeting	C\$180,000
Action 3: Continued support for exchange program for air quality professionals Activity 1: Development of updated list of requests Activity 2: Identification and facilitation of exchange opportunities	C\$103,000
Total Resources Required	C\$298,000

3.1.2 Developing Technical and Strategic Tools for Improved Air Quality in North America

Project Summary

This project is aimed at stimulating the development of tools needed for achieving and maintaining healthful air quality in North America. In addition to the development of innovative tools and programs, it will provide feedback on pollutant reduction strategies as well as highlight best practices. It is important to note this is the last year of this project. Following the completion and publication of three reports in the first half of 2000, this project will be terminated.

Goals and Objectives

The goal of this project is to stimulate the development of technical tools that have trilateral applicability to planning and pollution reduction programs in North America.

Specifically, the objectives of the project are to:

- highlight and promote successful voluntary and regulatory programs related to air quality management and
- improve modeling of emissions for dioxins and mercury.

Rationale

Air as a medium generates environmental action across the borders of the three North American nations. Credible and accurate information is crucial to addressing pollution problems within transboundary airsheds. In order to facilitate effective cooperative efforts, reliable information is needed on the characteristics and dynamics of transboundary airsheds, interaction between airsheds, and the movement of pollutants emitted into the environment through the atmosphere. The promoting of effective tools and strategies to address specific pollutants can help jurisdictions in North America advance on improving air quality. In 1996, the Council of the CEC agreed to promote the collection and exchange of appropriate data, and the development and application of suitable models for the range of chemical substances of concern as defined by the CEC (Council Resolution 96-05).

Progress to Date

During 1999, the Center for the Biology of Natural Systems (CBNS) at the City University of New York was contracted by CEC to develop an initial dioxin inventory for Mexico and, in combination with the existing inventories in Canada and the United States, to then model the impact of those continental emissions within the polar region of North America. The purpose of this activity was to both determine the efficacy of the HYSPLIT model for use on a continental scale and, to determine the major pollutant source areas through back apportionment of the deposition. If, as expected, this model is proven to have a continental applicability, it will allow more focused and, therefore, more cost effective control strategies in order to address specific environmental problems. While the report will be completed in early 2000 through the use of FY1999 funds, costs for editing, translating, and printing the report will be reflected in the FY2000 budget. Also during 1999, CEC contracted with the Mercury Policy Project to develop a report that describes the best known programs for reducing mercury from public and private waste streams. The report will also address barriers that might be encountered in efforts to replicate those programs and provide recommendations for how they might be overcome. This information will be made available to federal, state/provincial, and municipal/local levels of government, as well as to private businesses and public environmental groups within North America. As with the previously mentioned document, the costs for editing, translating and printing the report will be reflected in the FY2000 budget. In addition, during 1999, CEC contracted with the National Oceanic and Atmospheric Administration (NOAA) for the development of a mercury chemistry module that would allow the long-range transport of mercury to be assessed and deposition to be back-apportioned to the major contributing source areas. Once completed, the technical template for the mercury chemistry module will be made publicly available through the NOAA web site, in conjunction with their current template for the HYSPLIT model. A final report on the project will be prepared and made publicly available through the CEC. The costs for editing, translating and printing the final report will be reflected in the FY2000 budget. The CEC also contracted with the *Colegio de la Frontera Norte* in Tijuana, Mexico, to develop a GIS-based emission inventory for the communities of Rosarito, Tijuana, and Tecate. The CEC continued to pursue the development, during 1999, of a stakeholder-based organization intended to lend focus to the air quality issues within the San Diego-Tijuana/Rosarito air shed. This focus was shifted so the organization, known as the Air Alliance, will serve in an advisory capacity to the state and federal government air pollution control agencies on both sides of the border.

Actions 2000

2000		
Action 1: Continental modeling of dioxin emissions		C\$16,000
Activity 1: Edit, translate, and publish final report	C\$16,000	
Action 2: Development and analysis of mercury transport model		C\$7,000
Activity 1: Edit, translate, and publish final report	C\$7,000	
Action 3: Reduction of mercury in waste streams		C\$10,000
Activity 1: Edit, translate, and publish final report	C\$10,000	
Total Resources Required		C\$33,000

Public Participation

Since the work to be performed during 2000 is limited to editing, translating, and publishing reports developed as a part of the FY1999 work plan, opportunities for public participation are limited. The report on the Continental Modeling of Dioxin Emissions is planned to be highlighted at the first annual meeting of North American air pollution management officials scheduled for April 2000 where it will be made available to the general public. At about the same time, the reports on the Reduction of Mercury in Waste Streams and the Development and Analysis of Mercury Transport Model will be released to the public.

Capacity Building

This project will help develop capacity among air quality managers in improving ways to address transboundary air pollution through the development and promotion of successful tools and strategies.

Expected Results

The project actions on Continental Modeling of Dioxin Emissions and Development and Analysis of Mercury Transport Model will provide technical tools in the form of modeling techniques for use in assessing the impacts and sources of airborne mercury and dioxins. The third action, Reduction of Mercury in Waste Streams, will provide a menu containing descriptions of the best mercury-in-waste reduction programs, potential barriers to their replication, and approaches to overcome those barriers.

Expected Partners and/or Participants

Center for the Biology of Natural Systems (CBNS) at Queens College, National Oceanic and Atmospheric Administration (NOAA), The Mercury Policy Project, NGOs, Environment Canada, and the US EPA have been involved in this project.

Linkages to other CEC Projects

The modeling of dioxin emissions links directly to the work of the Sound Management of Chemicals project related to dioxins and furans. The mercury transport model also links to that project as well as to the modeling of mercury deposition on the Gulf of Maine that will be conducted during the implementation of the project Cooperation on the Protection of Marine and Coastal Ecosystems. The reduction of mercury in waste streams also relates to efforts to reduce mercury under the Sound Management of Chemicals.

3.1.3 Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors

Project Summary

This project seeks to address significant air quality issues affecting the three countries of North America. The focus for FY 2000 is on addressing air quality and other environmental issues associated with transport along North American trade corridors.

Goals and Objectives

The goal for this initiative is to identify and promote opportunities for collaboration on air quality issues in the context of trade and transportation corridors. This initiative is expected to be beneficial in bringing about cross-border cooperation that can help to improve the economy and, at the same time, the environment.

The objectives of this initiative are as follows:

- Identify and launch a pilot project designed to facilitate cooperation on a near-term reduction of transport-related diesel emissions.
- Identify the principal current, and probable future, North American trade and transport corridors along with opportunities for environmental cooperation related to them, including sharing best practices.
- Identify and pursue collaborative opportunities on modes of transport.

Rationale

During 1998/99, the CEC air program undertook a project to develop both technical and strategic tools for use in the control and prevention of air pollution. As a result of that experience, it is clear that the greater value of the CEC will be realized through efforts to identify and address actual air quality issues of trinational significance. This creates a more coherent approach in combination with the CEC project Facilitating Trinational Coordination in Air Quality Management. That project is designed to move the air pollution control agencies of the three countries to a position where they can better work with one another. This project, Trinational Air Quality Improvement Initiative, is designed to create the opportunities for such work to occur.

The North American Trade and Transportation Corridors project is designed to promote mutually beneficial, “win-win” opportunities to advance environmental improvements as well as transportation advancements along trade corridors in North America.

Trade is booming in North America. As regional commerce accelerates, so too does the flow of goods and services pulsing through North America trade arteries—on land, by air and over water. The network that supports our increasingly integrated commercial transactions constitutes a complex and interrelated infrastructure including highways, airways, waterways, transmission lines and cables, and gas and oil pipelines, to name a few. The flow of goods, services and information through the North American system is influenced, and often constrained, by a host of physical and administrative factors. Cars and trucks idle for hours at borders as custom officials inspect their contents, ground traffic is slowed by inefficient routing or other bottlenecks, and direct rail routes are increasingly difficult to find.

While, in many cases, other factors such as local trade patterns, demographic growth or suburban sprawl may explain stresses on infrastructure, recent studies do identify significant increases in North American trade generally and, in particular, heavy truck travel along the principal routes for inter-American trade. Highways constitute the dominant mode of transportation for North American trade, carrying 80 percent of US exports to Canada and 60 percent of Canadian exports to the United States. US-Mexican and Canadian-Mexican trade reflects similar percentages. Over 70 percent of US-Canadian trade (by value) moves by trucks, which also account for most of the trade with Mexico as well. Data indicates that truck traffic has increased substantially in the past decade, a trend that is forecast to continue in the future.

Communities have responded to increased traffic on local highways by proposing a wide range of measures, including some intended to facilitate regional trade through transportation corridors. In Canada alone, no fewer than ten regional and corridor-specific initiatives have been launched. Examples include the International Mobility and Trade Corridor Project, the Canamex Corridor, the Central North American Trade Corridor, the Mid-Continent International Trade Corridor Task Force, the North American International Trade Corridor Partnership, North America’s Superhighway Coalition, and the East-West Highway. Some of these, such as the Canamex Corridor, include proposals on a harmonized regulatory environment and distributed infrastructure planning, and many of these initiatives include features of interest to others active in regional planning exercises. In the United States, the federal Transportation Equity Act for the 21st Century (TEA-21) had allocated up to US \$140 million per year for five years through two programs: the National Corridor Planning and Development Program, and the Coordinated Border Infrastructure Program. In 1999, US \$124 million in grants were approved to fund 55 corridor-related projects.

Inherent in all of the trade corridor proposals are environmental dimensions, some with transboundary or North American significance. Trade corridor initiatives can lead to enhanced cooperation to maximize both environmental and trade/transport benefits.

In this dynamic context, the CEC can make an important contribution by bringing together diverse representatives from the public and private sector to share information on best practices and to stimulate collaborative endeavors.

Progress to Date

Initial scoping work was performed during the later half of 1999, resulting in the preparation of *North American Trade and Trade Transportation Corridors* (Sept. 1999). The report identified the most significant projects, participating agencies, and current level of coordination associated with North American transportation corridors.

Actions 2000

2000	
Action 1: Identify and initiate a pilot project to reduce transport related diesel emissions	C\$44,000
Action 2: Compile and evaluate data related to a selected trade and transportation corridor in order to quantify present and projected future emissions from transport vehicles	C\$30,000
Action 3: Develop and conduct scenario analyses of future environmental impacts associated with trade and transportation corridors	C\$59,000
Action 4: Convene a workshop of technical experts to review scenario analyses	C\$30,000
Action 5: Hold a trilateral meeting of officials from government agencies and nongovernmental organizations to present the scenario analyses and to identify opportunities for collaboration and cooperation	C\$30,000
Action 6: Identify opportunities for collaboration and cooperation	C\$30,000
Total Resources Required	C\$223,000

Public Participation

Public participation will occur in meetings where representatives of citizen and business groups will be invited to review issues and participate in their resolution.

Capacity Building

Build capacity to evaluate region-wide environmental impacts and policy options beyond local, state, provincial or federal jurisdictional boundaries.

Expected Results

- Greater opportunity for near-term improved air quality in the vicinity of trade and transportation routes.
- Improved understanding of the future environmental impact of increasing ground transportation.
- Improved understanding of the negative or positive effects of transportation corridors on the air environment.
- Coordination between the three countries, and between involved entities in each of the countries, in the development of transportation corridors designed to transfer goods between the countries of North America.
- Greater consideration being given to the needs of the environment during the development of the transportation corridor system.

Expected Partners and/or Participants

Trade, transportation, health, and environmental agencies from the three countries, citizen environmental groups, local governments, private businesses. JPAC has identified NAFTA transportation corridors as a priority for its work. JPAC will be invited to participate in a stakeholder meeting.

Linkages to other CEC Projects

The North American dialogue on the environmental considerations associated with transportation corridors remains in its formative stage, affording the CEC an opportunity to play a proactive and preventative role in this fast-developing area. As an interdisciplinary undertaking, the initiative will require close internal coordination with both the Pollutants and Health program and the Environment, Economy and Trade program.

Actions 2001

2001	
To be determined	
Total Resources Required	C\$148,000

Actions 2002

2002	
To be determined	
Total Resources Required	C\$148,000

Sound Management of Chemicals Program

Program Summary

The Sound Management of Chemicals (SMOC) Program is an ongoing intergovernmental program to reduce the risks of persistent toxic substances to human health and the environment. Actions include the phase-out and banning of particular chemicals of concern, encouraging pollution prevention, and achieving emission reductions. The North American Working Group on the Sound Management of Chemicals, hereinafter referred to as the Working Group, its subsidiary bodies, and the Secretariat of the Commission for Environmental Cooperation (CEC) will continue to help implement the decisions and commitments set out in Council Resolution 95-05 on the Sound Management of Chemicals, including the implementation of instructions subsequently received from the Council of the CEC pursuant to this Resolution.

Under the Resolution, the Parties have committed “to regional cooperation for the sound management, throughout their life cycles, of the full range of chemical substances of mutual concern including pollution prevention, source reduction and pollution control.” The Parties further directed that the Working Group, in addressing the decisions and commitments contained in the resolution, “recommend, as set out in Chapter 19 of Agenda 21: . . . concerted activities to reduce risks presented by toxic chemicals, taking into account the entire life cycle of chemicals. These activities could encompass both regulatory and nonregulatory measures, such as promotion of the use of cleaner products and technologies; emission limitations; product labeling; use limitations; economic incentives; and phasing out or banning of toxic chemicals that pose an unreasonable and otherwise unmanageable risk to the environment or human health and those that are toxic, persistent and bioaccumulative and whose use cannot be adequately controlled. . . .”

This program is very much an environment/economy initiative and the chemicals being addressed result from anthropogenic industrial/economic activities. Typically the substances considered for regional action are or have been contained in traded goods (examples include PCBs; pesticides such as DDT, chlordane and lindane; and metals such as lead and mercury) or are byproducts of industrial activities (examples include dioxins, furans, hexachlorobenzene and mercury).

Long-term Objective

An overall general objective of the program is to provide a continuing and increasingly effective forum to facilitate cooperation and trilateral agreements and action on managing and reducing chemical pollution in North America. Examples include collaborative and cooperative efforts by the three countries in negotiating future decisions and commitments within international settings, such as the United Nations Environmental Programme (UNEP), the Organization of Economic Cooperation and Development (OECD), the Organization of American States (OAS), or the Intergovernmental Forum on Chemical Safety (IFCS). A recent example is the CEC/SMOC input to the first negotiating session on a globally binding instrument on persistent organic pollutants (POPs), held 29 June to 3 July 1998 in Montreal.

The program provides a mechanism for Canada, Mexico and the United States to help position the region so that it is, and is perceived to be, playing a global leadership role in advancing international efforts to improve the Sound Management of Chemicals. An important long-term (three to five years) objective is to enable Canada, Mexico and the United States to be in a position to be amongst the first countries to sign and ratify the Convention on Persistent Organic Pollutants that is currently being negotiated under the auspices of the United Nations. This program provides a vehicle for reducing the risks of, and the exposure to, chemical substances, especially those that are persistent, toxic, are transported long distances through atmospheric and aquatic pathways, and which bioaccumulate.

The CEC SMOC Program has developed active partnerships with other regional and binational initiatives, including those of the International Joint Commission, the Binational Strategy under the Great Lakes Water Quality Agreement, and the New England Governors and Eastern Canadian Premiers. Many of the activities under the SMOC program will also involve considerable cooperation with other CEC projects, especially those involving air quality and law and enforcement cooperation.

A second enabling objective is to develop and maintain a knowledgeable and supportive public and stakeholder constituency in support of this program.

Project

Program objectives will be met through a single project:

- The Sound Management of Chemicals project

3.2.1 Sound Management of Chemicals

Project Summary

The Sound Management of Chemicals (SMOC) project is an ongoing intergovernmental initiative to reduce the risks of persistent toxic substances to human health and the environment. By focusing on persistent, bioaccumulative and toxic substances, 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 approved NARAPs.

The chemical-by-chemical approach will continue to be a significant proportion of the project. However, other more proactive aspects of the sound management of chemicals expected to be given greater attention include: 1) strengthening capacity to implement the full range of decisions and commitments contained in Council Resolution 95-05; 2) monitoring, modeling and research assessing exposure to chemicals and risks from them, as well as evaluating progress under the SMOC initiative; 3) the consideration of clusters or groups of chemicals, and specific industrial sectors or industrial complexes; and 4) alternative approaches and innovative technologies.

Goals and Objectives

The overall goal of this initiative is to provide a continuing and increasingly effective forum to facilitate cooperation and trilateral agreements and action on reducing chemical pollution in North America. The activities are 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 of the Sound Management of Chemicals include:

- assisting the Working Group to implement 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, lindane, chlordane, DDT, and dioxins, furans and hexachlorobenzene;
- providing impetus to the implementation of the NARAPs by supporting specific capacity building and implementation actions;
- monitoring progress in the implementation of the NARAPs; and
- seeking to identify new and additional funds to assist the Parties with SMOC.

Rationale

Chemical substances, especially those that are persistent, toxic, bioaccumulate in living organisms, and 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 the North American Agreement on Environmental Cooperation (NAAEC) provide a formal mandate for this project. Article 10(5)(b) specifically calls for the Council “to promote and, as appropriate, develop recommendations regarding appropriate limits for specific pollutants, taking into account differences in ecosystems” and Article 2(2) states that “each party shall consider implementing in its law any recommendation developed by Council under Article 10(5)(b).”

The increasing emphasis on extension work to develop capacity for implementing existing and potential NARAPs reflects the recognition that, while each of the three countries have capacity building/ coordination requirements related to the SMOC, the major costs associated with implementation will be carried by Mexico. Immediate concerns relate to the NARAPs for DDT, chlordane, PCBs and mercury. This emphasis also reflects the recognized need to actively support Mexico in implementing these decisions and commitments through capacity building, as well as through the use of CEC funds as seed money to obtain additional funding in support of full implementation for NARAPs and other aspects of Council Resolution 95-05.

Progress to Date

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 Working Group was also established by Council under Resolution 95-05 to work with the CEC to implement the decisions and commitments set out in the Resolution. The initial focus was on the sections of the Resolution that are aimed at joint collaborative planning to develop North American Regional Action Plans (NARAPs) on chemicals that are persistent and toxic. The Working Group has generally met twice each year to review and stimulate progress, to consult with stakeholders, and to provide general and specific guidance to its subsidiary bodies and to the Secretariat.

NARAPs for three substances on the UNEP list of persistent organic pollutants—PCBs, DDT and chlordane—have been developed and approved by the Council of the CEC. A fourth NARAP on mercury has been completed and approved by Council as phase 1 of a more comprehensive action plan on mercury to be completed early in 2000. A “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Initiative” was also developed and approved and is now being implemented. These documents are posted on the CEC web site and are also available in a consolidated report, entitled *The Sound Management of Chemicals Initiative under the North American Agreement on Environmental Cooperation: Regional Commitments and Action Plans*.

The implementation phase of each approved NARAP is being guided by an Implementation Task Force that has replaced the group that originally developed the NARAP. A Substance Selection Task Force is overseeing the “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Program.” Nomination dossiers for hexachlorobenzene, dioxins and furans, lindane and lead were prepared by the governments. The Substance Selection Task Force has completed its evaluation of hexachlorobenzene, and of dioxins and furans. Lead and lindane are currently being evaluated in accordance with the approved process.

As the program has matured, there has been an increased need for selected follow-up related to the “implementation” of NARAPs. Similar follow-up has been required with respect to other commitments contained in Resolution 95-05 or which have been made subsequently by Council, by the Alternate Representatives or by the Working Group. The Working Group has repeatedly emphasized the need for appropriate and active involvement by its members, by members of appropriate task forces, and by the CEC Secretariat in the implementation of joint/cooperative aspects of approved NARAPs.

The “implementation” aspect involves two related, but different, sets of activities. The first set of activities are managed as part of the “core” SMOC program under the general direction of the Working Group and its subsidiary bodies. These cooperative and/or collaborative activities have typically been in response to implementation needs identified during the NARAP development phase or which have become apparent during the implementation phase. These activities are intended to facilitate and encourage the implementation of NARAPs and other commitments made under the SMOC program. They are seen as being an extension of the joint trilateral planning of NARAPs.

In 2000, some resources will be available, especially for activities for which joint action is necessary, to help facilitate the implementation of the mercury NARAP. The second set of activities are grouped under a capacity-building/leveraging action (Action 3) and are intended as a means of assisting Mexico and generating financial resources to help Mexico execute programs to facilitate the implementation of NARAPs and to meet other needs arising from Council Resolution 95-05 on the Sound Management of Chemicals. Capacity building is critical to the implementation of the SMOC initiative and to the NARAPs developed under it. The SMOC Working Group, its subordinate bodies and the CEC Secretariat are all expected to be alert to opportunities for partnerships and external resources to promote capacity building in support of the SMOC initiative. The Capacity Building Task Force, established in October 1998, has taken the lead in developing the conceptual basis and strategy to help guide future efforts in this area. Capacity building under the SMOC initiative began in a modest way in 1996, with some small projects funded directly out of SMOC funds and others funded by the CEC’s capacity building project. The funding from this capacity building project was allocated in accordance with an initial strategy and seven priority areas recommended by a consultant. In 1996, three activities were funded from this project. In 1997, a total of 11 activities were funded. In 1998, funds were committed for 16 activities and, in 1999, for 17.

An important new initiative was formally launched in June 1999. The Council, at its sixth regular meeting held in Banff, Alberta, directed the Working Group to develop a NARAP on dioxins and furans, and hexachlorobenzene (Council Resolution 99-01). This NARAP will be addressing a cluster of compounds that are typically formed as unwanted byproducts released to the environment during the production or destruction of commercial products. The Council also approved another important initiative to develop a NARAP on environmental monitoring and assessment (Council Resolution 99-02).

The Chlordane Implementation Task Force has largely completed the implementation of the NARAP on chlordane, in part through the use of an existing forum, the US-Mexico Pesticide Information Exchange Program. The implementation of the chlordane NARAP is a success story in that chlordane is no longer manufactured or registered for use in Canada, Mexico or the United States. The NARAP attracted high level public and governmental attention which contributed to the accomplishments of the Task Force. The Working Group expects that work on the development and testing of alternatives to chlordane, along with information sharing, training and technical assistance, will continue. To help meet these needs, the CEC cosponsored a workshop on alternatives to chlordane, held in McAllen, Texas, in November 1998. The Working Group has directed the chlordane Task Force to prepare a report describing how the recommended actions were implemented in order to assess the extent to which the goals and objectives of this NARAP had been met. The Working Group considers the chlordane NARAP a success and anticipates that the implementation Task Force on Chlordane, having completed its work, will be disbanded at the end of 1999.

The DDT Implementation Task Force has worked together with the CEC Secretariat and other agencies in the planning of major collaborative “capacity-building” projects to assist in generating external resources to aid Mexico in developing safe and effective measures for malaria control, while at the same time reducing and eliminating the use of DDT. Mexico has had very good success at reducing the incidence of malaria while at the same time reducing the dependence on DDT. Following approval of the NARAP on DDT (in 1997), the amount of DDT used has declined by approximately 50 percent.

The Mercury Implementation Task Force has been very active in implementing the actions called for in phase 1 of this NARAP, and a much more comprehensive and ambitious phase 2 NARAP is now undergoing public review. It is anticipated that a revised draft, incorporating comments received during the public review stage, will be available for review by the Working Group by the end of 1999.

The PCB Implementation Task Force has been instructed to prepare 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.

The CEC’s North American Fund for Environmental Cooperation (NAFEC) is another source of potential funding for capacity-building initiatives that may overlap with the goals and objectives of SMOC. NAFEC funding supports community-based environmental projects in Canada, Mexico and the United States. In 1996, NAFEC funded a World Wildlife Fund Project, entitled “The DDT Dilemma: Seeking Alternatives which address Community Priorities,” that evaluated alternatives to DDT in controlling malaria-transmitting vectors in Mexico. It is anticipated that future capacity building initiatives related to the effective implementation of the new NARAPs may be eligible for NAFEC funding.

The Sound Management of Chemicals program has maintained a close working relationship with CEC programs on Enforcement Cooperation and Cooperation on North American Air Quality Issues. The latter deals with modeling of the atmospheric transport of mercury and dioxins that are directly relevant to the development and implementation of specific NARAPs. In addition, the NARAP on environmental monitoring and assessment that is now getting underway will be building on current marine monitoring efforts in the Gulf of Maine and Bight of the Californias and developing close linkages with the projects to be conducted under the Conservation of Biodiversity program, including projects on ecosystem monitoring and on the mapping of marine and estuarine ecosystems in North America. In support of the SMOC program, the initial scoping work on the nature and significance of marine and freshwater ecosystems in the transport and cycling of persistent bioaccumulative and toxic (PBT) substances that was originally identified in 1999 workplan and budget will be carried out in 2000.

The Working Group has concluded that greater priority needed to be given to environmental monitoring and assessment in support of the SMOC initiative. This will be, in part, a capacity-building activity aimed at improving the quality, relevance and comparability of monitoring information collected in the three countries. It has direct relevance to projects aimed at improving the performance of environmental analytical laboratories and will also relate to the Ecosystem Monitoring Initiative under the CEC's Conservation of Biodiversity program. The Working Group has also recognized a need to move beyond a chemical-by-chemical approach by addressing clusters of chemicals and specific industrial sectors.

SMOC Working Group priorities and project progress are communicated regularly to the CEC Alternate Representatives through memoranda issued by the chair of the Working Group following regular meetings as well as through formal intergovernmental agreements that have been developed under the guidance of the Working Group. These documents are placed on the CEC's web site and are intended as a means of improving the transparency and accountability of the SMOC initiative.

Actions 2000

Overview

The activities carried out under this project are organized around meetings and conference calls of the Working Group and its subsidiary bodies, with the Secretariat providing administrative, coordination and professional support.

The SMOC initiative has entered a new implementation phase involving the integration of capacity-building into most aspects of the work. In many instances, the primary focus of capacity-building activities will be in Mexico and while the Working Group and its subsidiary bodies will have oversight and general guidance roles to play, the primary day-to-day responsibility for implementing most capacity-building activities will rest with Mexican members of these entities, working together with the CEC. Increasingly, important emphasis will be on leveraging new and additional funds to assist Mexico in capacity-building to support the Sound Management of Chemicals program. The concept paper on capacity-building needs and the Strategic Plan now under development, which were produced under the guidance of the Capacity Building Task Force, and the guidelines/criteria contained within these documents will help direct and support these capacity-building activities and will provide an important basis for leveraging external funds.

It is expected that the seven original categories guiding the initial capacity-building work will continue to be relevant. These are:

1. continuous updating of databases on toxic, persistent and bioaccumulative substances in Mexico;
2. development of management procedures to control and restrict production, imports, trade and use of selected substances;
3. identification and evaluation of toxic, persistent and bioaccumulative substances to be phased out;
4. disclosure of decisions to interested parties and communication of follow-up actions through printed and electronic documents;
5. encouragement of research on the health and environmental risks related to the use in Mexico of substances subject to regional action plans;
6. strengthened capacity for environmental sampling and analysis, and exposure and risk assessment related to problematic substances;
7. strategic design for technology transfer to promote process changes, implementation of control systems, and remediation methods related to selected substances.

In 2000, the capacity-building efforts will increasingly focus on developing and implementing major funding initiatives to support the enhancement of Mexico's capacity to implement specific provisions of the NARAPs, as well as the more general provisions of the Sound Management of Chemicals Resolution. Current examples of these "major" efforts are initiatives involving the Canadian International Development Research Centre (IDRC) and the Global Environment Facility (GEF) that are intended to assist Mexico with the implementation of the NARAP on DDT.

The major functions and responsible entities for carrying out the operational aspects of the SMOC initiative are:

Project planning and management with oversight provided by the Working Group and input from its subsidiary bodies and the CEC Secretariat. In 2000, the Working Group will be holding its ninth, tenth and eleventh regular meetings and will be providing project updates after each meeting. The Working Group will be playing a guiding role with respect to start-up support for larger-scale “partnership/leveraging” initiatives that develop during the year. Funds to complete the final draft of the Strategic Plan prepared by the current Capacity Building Task Force are assigned, in 2000, to the Working Group. The Working Group will also be responsible for reviewing the decision documents prepared on the evaluations of lindane and lead that are being carried out by the Substance Selection Task Force (SSTF).

Since the four NARAPs developed thus far will be in the implementation phase, or will have been implemented by the end of 2000, the Working Group has instructed each of its implementation task forces to prepare a report summarizing experiences gained to date. Specifically, the reports will demonstrate progress to date toward achieving or, in some cases (e.g., chlordane), completing the commitments outlined in the existing NARAPs. These reports will then form part of a review and evaluation of the Sound Management of Chemicals initiative that is being planned for 2001. The Implementation Task Force (ITF) will provide progress reports on the implementation of the NARAP on PCBs and DDT in 2000, for consideration by the Working Group at its eleventh regular meeting.

Capacity-building planning in general support of the SMOC initiative, including the development of a conceptual framework and a more detailed strategic plan, has been led by the Capacity Building Task Force. It is anticipated that this group will have submitted its final draft of the strategic plan by April 2000 for consideration by the Working Group. The conceptual and strategic plan will help guide capacity-building activities and assist in leveraging external funds. In 2000, it is expected that at least two major cosponsored initiatives relating to the DDT NARAP will be well underway.

Implementation of phase 1 of the NARAP on mercury, and development, completion and overseeing the implementation of phase 2 of the NARAP on mercury by the Implementation Task Force on Mercury. In 2000, this Implementation Task Force will begin implementation of specific actions of phase 2 of the mercury NARAP. CEC implementation funds will be employed in support of specific commitments described in phase 2 of the NARAP on mercury, taking into account potential linkages to other CEC initiatives. The ITF will also be submitting its report on activities under the mercury NARAP for consideration by the Working Group at its eleventh regular meeting.

Evaluation of lindane and lead as candidates for regional action, under the direction of the Substance Selection Task Force of SMOC, is expected to be completed in early 2000. The SSTF will prepare an assessment of the “Process for evaluating candidate substances for regional action under the Sound Management of Chemicals initiative” for consideration by the Working Group at its eleventh regular meeting.

Development of a NARAP on dioxins and furans, and hexachlorobenzene, as recommended by the SSTF and as directed by Council in its Resolution 99-01, is proceeding with a draft NARAP that will be available for public review and comment.

Development of a NARAP on environmental monitoring and assessment, as directed by Council in its Resolution 99-02, is also proceeding with a draft NARAP that will be available for public review and comment.

An experts workshop on the pathways of chemical contaminants in the marine environment is planned for early in 2000. While this activity is not being carried out by the Working Group itself, it is to be performed under the Sound Management of Chemicals project, due to its close relation with that initiative. The expectation is that the workshop participants will identify priority areas of concern regarding the extent and significance of marine contaminant pathways for persistent, bioaccumulative and toxic substances. The scoping work will include an initial assessment of: a) the significance of riverine transport of chemical contaminants to estuaries and marine ecosystems; b) the fate, accumulation, and concentrations of these substances in marine waters, sediments, and biota, and food chain interactions; c) the role of migratory species and ocean currents in the transport of chemical substances; and d) research and monitoring needs and potential implementation mechanisms.

Sound Management of Chemicals Program

2000	
<p>Action 1: (Working Group): Support ongoing activities associated with the SMOC Working Group core functions related to the overall direction and coordination of the initiative, encouraging timely development of products, and assessing and reporting on progress. This will include two regular meetings and numerous conference calls to provide oversight and guidance to subsidiary bodies; coordinate internal information for consideration by the independent review panel; review implementation and capacity-building efforts and related tasks</p>	C\$146,000
<p>Action 2: Facilitate and coordinate internal task force reviews for the PCB, DDT, chlordane and mercury Implementation Task Forces</p>	C\$15,000
<p>Action 3: Conduct capacity-building/leveraging initiatives associated with the NARAP for DDT and the GEF/IDRC proposal, along with other possible cosponsored initiatives. These funds represent the CEC contribution to cosponsored GEF/IDRC-related actions, including:</p> <ul style="list-style-type: none"> • if the GEF/IRDC proposal is accepted, continue complementary activities in Mexico, as specified in the proposal • continue with the implementation of chemical and non-chemical alternatives in other states, not solely in Oaxaca, (as tests thus far have occurred only there, it will be important to expand them to include different ecological regions) • continue the system of information on DDT and other pesticides in the rest of the country • continue with environmental and biological monitoring of DDT and pyrethroids in the following years • continue evaluating the effects on human health and on ecosystems • prepare an inventory of alternatives to the use of DDT in support of the DDT NARAP 	C\$232,000
<p>Action 4: Initiating implementation of specific commitments contained within phase 2 of the mercury NARAP. In particular, action item 4(e)iv from phase 2 of the mercury NARAP has been selected as a priority. It is described as follows: “to initiate the development of a North American inventory of sites where elevated levels of mercury may occur due to either human activities or natural geological influences”</p>	C\$154,000
<p>Action 5: Provide technical support for the Substance Selection Task Force, including the completion of the review process for two nominated substances—lead and lindane</p>	C\$22,000
<p>Action 6: Initiate development of the NARAP on dioxins and furans, and hexachlorobenzene. This will be a very large, complex NARAP and a major experts/stakeholders workshop will be held some six to eight months after the United States has issued its dioxin reassessment, which is now expected to be released by the end of 1999. The International Joint Commission (Canada and the United States) has, through its International Air Quality Advisory Board, indicated a willingness to cosponsor events and the preparation of background documents to assist in the development of this NARAP</p>	C\$128,000

<p>Action 7: Initiate the development of the NARAP on monitoring and assessment. This will be a cross-cutting NARAP that will need substantial involvement and support of experts and officials who are involved in the long-term monitoring of chemical pollutants in the marine and terrestrial environments of North American. A major experts/ stakeholder workshop is planned for June of 2000, perhaps to be held in conjunction with the regular meeting of Council. The International Joint Commission has, again through its International Air Quality Advisory Board, indicated a great deal of interest in helping with the development of this NARAP</p>	<p>C\$89,000</p>
<p>Action 8: (Marine Contaminant Pathways): Workshop and initial assessment of the transport, fate, and cycling of persistent, bioaccumulative and toxic substances in riverine, estuarine, and marine ecosystems</p>	<p>C\$49,000</p>
<p>Resources required for the core component of the Sound Management of Chemicals project (Actions #1, 2, 3, 5, 6, and 7)</p>	<p>C\$632,000</p>
<p>Resources required for capacity-building/leveraging component of the Sound Management of Chemicals project (Action #4)</p>	<p>C\$154,000</p>
<p>Total Resources Required</p>	<p>C\$835,000</p>

Public Participation

The CEC continues to place high priority on providing opportunities for expert, public and stakeholder input to furthering its work under the Sound Management of Chemicals initiative. An overview and update of the Sound Management of Chemicals program as well as other project publications are prepared, distributed and placed on the CEC web site to inform stakeholders and to provide them with material for review and comment. Public comment and stakeholder input have been, and will continue to be, important to the development of NARAPs. The public will, in most instances, be invited to participate in the opening day of regular Working Group meetings, and SMOC reports and decisions will be made widely available for information and comment. Also, three specialists (one each from Canada, Mexico, and the United States) from academia, industry and environmental nongovernmental organizations now participate as observers on the Implementation Task Force on Mercury and on the Substance Selection Task Force. The process for identifying candidate substances for regional action under the Sound Management of Chemicals initiative also includes several opportunities for stakeholder input and public comment.

Expected Partners and/or Participants

This initiative is by its very nature an inclusive, consensus-building project that involves different levels of government, industries and industrial associations, environmental nongovernmental organizations and the academic community. International and binational institutions such as the International Joint Commission, and the New England Governors and Eastern Canadian Premiers are involved as participants or as cosponsors of events. Furthermore, international, binational and national aid and lending agencies are likely to be increasingly involved in the future. There is also a possibility of developing more formal linkages with the NAFTA Technical Working Group on Pesticides.

Expected Results

Implementation of key actions identified in phase 2 of the mercury NARAP will be well advanced and the DDT NARAP will be approaching complete implementation by the end of 2000. Furthermore, the CEC will have leveraged significant amounts of resources and established partnerships to ensure successful implementation of this NARAP. The Substance Selection Task Force will have completed its review and evaluation of the remaining nominated substances, lead and lindane, and its recommendations will be brought before Council at its Regular Session in the summer of 2000. Capacity-building initiatives will continue to be an important and ongoing need associated with the implementation of past, present and future NARAPs. It is expected that the final version of the capacity-building strategic plan will be ready for distribution early in 2000.

The two NARAPs under development (dioxins and furans, and hexachlorobenzene, and environmental monitoring and assessment) were announced by Council Resolution in June 1999, but neither plan has been formally implemented. This delay, as well as the complex nature and scope of the NARAP for dioxins and furans, and hexachlorobenzene and that for environmental monitoring and assessment, make it very unlikely that either of these draft NARAPs will be ready for public review and comment before June 2001.

The Sound Management of Chemicals Initiative in 2001, 2002, and Beyond

The Sound Management of Chemicals program/project has been a continuing activity since 1995 and, while the program does evolve in response to new requirements, the changes in actions/activities are expected to be relatively modest in 2001 and 2002. At this time, we are expecting funding levels similar to those that have existed in the past, although the mix of actions/activities will shift somewhat in response to both foreseen and unforeseen events.

An important long-term objective is to enable Canada, Mexico and the United States to be in a position to ratify the Convention on Persistent Organic Pollutants that is currently being negotiated under the auspices of the United Nations. With this in mind, the Sound Management of Chemicals Working Group will be formulating a five-year plan outlining strategic priorities for the future.

North American Pollutant Release and Transfer Register

Objectives

Information about certain chemical substances released to the environment or transferred on- or off-site by industrial facilities is available from the facilities themselves in the form of data they report to the national pollutant release and transfer (PRTR) programs of Canada, Mexico and the United States. Government policy makers, members of the public, and the facilities can employ these data for a wide variety of uses. The goals of the CEC in this program are to promote the effectiveness and use of national PRTR program information by the public and industry through highlighting the efforts and outputs of the national programs; facilitate a North America-wide approach to data presentation and use, in line with the CEC's trilateral mandate; provide an information base for cooperative actions to reduce pollutants in the North American environment and invite reductions in North American pollutant releases and transfers through information comparison. It was to this end that the CEC's North American Pollutant Release and Transfer Register program was initiated in 1995.

At the Fourth Annual Regular Session of the CEC in Pittsburgh, Pennsylvania (June 1997), the Ministers adopted Council Resolution 97-04, "Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs)." This resolution commits the three governments to produce annually a report on North American pollutant releases and transfers, to work toward adopting more comparable PRTRs and developing an implementation plan to do so, to collaborate on the development of an Internet site to present a matched subset of data from the three North American PRTRs, and to promote regional cooperation to enhance North American PRTRs and improve the usefulness of the information by allowing better comparison and use of the data.

Project

Since the activities within this program are very closely interrelated, the program consists of one project, which encompasses all of the activities.

3.3.1 North American Pollutant Release and Transfer Register

Project Summary

In order to ensure that citizens have access to accurate information on facility releases and transfers of toxic chemicals which may affect them locally, the CEC PRTR project focuses on information outreach through:

- the publication of various reports (*Putting the Pieces Together*; the *Taking Stock* annual series);
- development of a North American PRTR Internet site;
- working with PRTR community groups; and
- coordinating CEC efforts with those of other international organizations.

The project also promotes comparability and content of PRTR data through enhancing the comparability of the national PRTR programs and working toward summarizing North American nonpoint source emissions.

Goals and Objectives

The goal of this project is to ensure that citizens have access to accurate information about the release and transfer of toxic chemicals from specific facilities into and through their communities.

The objectives of this project include:

- providing an overview of North American pollutant releases and transfers that can assist in a better understanding of sources and handling of industrial pollution, allowing national, state, and provincial governments as well as industry and citizens to set priorities for pollution reduction;
- invite reductions in North American pollutant releases and transfers through information comparison;
- assist citizens in integrating and understanding the ramifications of North American PRTR data;
- work toward providing a summary of nonpoint source emissions in North America, in order to provide context for understanding sources of industrial pollution;
- encourage enhanced comparability of North American PRTR systems; and
- coordinate North American PRTR activities with similar international activities.

Rationale

PRTRs provide data on the types, locations, and amounts of substances of concern released on-site and transferred off-site by industrial facilities. Many corporations also use the data to report to the public on their environmental performance. Tracking environmental substances of concern through PRTRs is essential to: enhance environmental quality; increase public and industry understanding of the types and quantities of substances of concern released into the environment and transferred off-site as waste; encourage industry to prevent pollution, reduce waste generation, decrease releases and transfers, and assume responsibility for chemical use; track environmental progress; and assist government in identifying priorities. In North America there are two PRTR systems that have multiple years of data: the Canadian National Pollutant Release Inventory (NPRI), and the US Toxics Release Inventory (TRI). Mexico is beginning to acquire information through the Mexican *Registro de Emisiones y Transferencia de Contaminantes* (RETC), as embodied in the annual *Cedula de Operación* (COA).

Concerns may arise about chemicals in any environmental medium. In addition, releases to one environmental medium may be transported to others. Volatile chemicals in water releases, for example, may vaporize into the air. Therefore, the reporting of chemical releases and transfers to all environmental media is important.

Many of the benefits of a PRTR stem from the public disclosure of its contents. Active dissemination is important as it encourages public participation.

The utility of PRTRs has been recognized by other international organizations. Chapter 19 of Agenda 21 states that governments and relevant international organizations with the cooperation of industry should “improve databases and information systems on toxic chemicals” and that “the broadest possible awareness of chemical risks is a prerequisite for achieving chemical safety.” In 1996, the Council of the Organization for Economic Cooperation and Development (OECD) recommended that “[m]ember countries should consider sharing periodically the results of the implementation of such systems among themselves and with nonmember countries with particular emphasis upon sharing of data from border areas among relevant neighboring countries,” and that member countries in establishing PRTR systems should take into account the set of principles contained in the Annex to the OECD Recommendation, including that “PRTR systems should allow as far as possible comparison and cooperation with other national PRTR systems and possible harmonization with similar international databases.”

Progress to Date

In November 1996, the CEC published a report, entitled *Putting the Pieces Together*, which provided an overview of the status and compatibility of the pollutant release and transfer register programs in Canada, the United States, and Mexico. In July 1997, the CEC produced the first annual report on pollutant releases and transfers, entitled *Taking Stock: North American Pollutant Releases and Transfers—1994*. This report analyzed the 1994 publicly-available PRTR data reported to Canada and the United States, and profiled the pilot project in Mexico. It was recognized that this report would assist in leading the way for other countries to share and compare their data—it was the first time that subsets of the full national databases were compared and analyzed. It spotlighted the national PRTRs and, in so doing, highlighted some of the important differences between the NPRI and the TRI—differences that were of interest to the national governments.

The second such report, *Taking Stock: North American Pollutant Releases and Transfers—1995*, was published in October 1998. The third annual report, *Taking Stock: North American Pollutant Releases and Transfers—1996*, was published at the end of July 1999 and the fourth, on 1997 data, is scheduled for the first half of 2000. In developing these reports, the CEC used an extensive consultative review process, including public meetings and the preparation of Response to Comments documents. The CEC is committed to publish annually a report analyzing the publicly available data reported to the North American governments, as mandated by the Council.

In 1998, the CEC sponsored the initial development of a trilingual Internet site to present the matched subset of data from each of the three national PRTRs and provide information on the degree of comparability of the North American PRTRs, and other information as agreed upon. The site was made publicly available in the fall of 1999, presenting 1996 PRTR data.

The CEC has begun a multi-year activity to define and estimate other sources of North American pollutant releases, as PRTRs reveal only part of the picture of chemical substances released to the natural environment as a result of human activity. Contaminant sources that do not report to some or all PRTRs include:

- mobile sources (transportation),
- small sources (such as auto service stations and dry cleaners), and
- area sources (agricultural sources, mining, parking lots).

In this activity, the CEC and the PRTR national program offices have agreed to select discrete types of nonpoint sources, and determine the existence of available estimation techniques and how these apply within North America, and estimate the nonpoint sources for North America for a calendar year.

This activity has occurred in two phases. In 1998 and early 1999, phase 1 scoped the existing information, identified the methodologies available, studied the viability of systems and the applicability of GIS. Upon completion of the final report from that first phase in the fall of 1999, the CEC, in conjunction with the national PRTR representatives, will decide the timing of the initiation of phase 2—the estimation of the contribution of specific nonpoint source sectors to the pollution loading in North America.

(This activity is complemented by an activity under the project on North American Air Quality, a compilation of studies on emission-source categories that seeks to better understand and identify opportunities for minimizing the magnitude and impact of transboundary pollution and facilitate the increased exchange of information on these matters. Also, the Article 13 report, *Continental Pollutants Pathways*, recognized the importance of nonpoint sources of pollution by concluding: “Major sources of continental pollutants include electric power plants, the transportation sector, industrial combustion of fossil fuels, municipal and medical waste incinerators, and chemical use in agriculture.” The two projects are collaborating in the first phase of this activity.)

In 1998, the possibility to initiate several multinational pilot projects to demonstrate how PRTR information can be accessed and used at the community level was scoped in a workshop held 2–3 December 1998. Several projects were discussed, scoped, and sponsored by the CEC:

- Development of a trinational map to help local infrastructure understand the use of PRTR data and to encourage industries and communities to work together on PRTRs by featuring one city from each country (see Expected Results, below). This map was published in November 1999.
- Networking and North American cooperation was furthered by having US/Canadian participation in Mexican NGO workshops to increase communication on North American PRTR issues. This was completed in May 1999.

A workshop was also held on 2 March 1999 for industry groups. At that time, several projects were also discussed. The participants were especially interested in a sectorial PRTR comparison—analyses by SIC code and by substance that would allow the facilities to get at the information behind the data. However, the participants did not provide the CEC with the follow-up information that would be necessary to pursue such a study.

The initial meetings of the community and industry networking groups will provide a basis for the establishment of a multi-stakeholder expert task force in 2000 that will focus on a specific pilot initiative or research question related to improving access to and enhancing understanding of PRTR information in North America, complementary to existing project activities. Further CEC sponsorship of PRTR-related activities involving community/stakeholder groups will also be explored.

The CEC cosponsored (along with INE, UNITAR, OECD, and UNEP) the PRTR Workshop of the Americas, held in Querétaro, Mexico, at the end of July 1997. Most of the countries of the Americas participated in this workshop. The CEC and the national PRTR programs have been coordinating with the OECD and hemispheric efforts to avoid duplication of effort and assist in information dissemination.

Actions 2000

Overview

Report on NA PRTR information—1998–1999 data

The objective of these activities is to develop the annual North American pollutant release and transfer reports based upon existing public inventory information. A separate report will be developed for each year's data. The *Taking Stock* report on 1998 data will enter development and be published, and the report on 1999 data will be planned. Trend information from previous years' reports will be included. Mexican data will be incorporated as they become available. These activities include updating the methodology for making the data comparable. The development of the report includes a prior consultative review and a quality control review by a small group prior to finalization.

Operation and updating of North American PRTR Internet site

The trilingual Internet site, initiated in 1998 to present the matched subset of data from each of the three national PRTRs and provide information on the degree of comparability of the North American PRTRs and other information as agreed upon, will need to be continuously updated with the latest PRTR information. The site should continue to be modified to reflect current interests in North America.

Updating of an implementation plan to enhance the comparability of North American PRTRs

The national PRTR programs will discuss specific elements of their programs that may be appropriate to coordinate with the other programs to increase the degree of comparability of their programs. It is recognized that a greater effort should be placed in this area once Mexico has revised and finalized its PRTR regulations, some areas can be immediately addressed. The implementation plan will need to be updated annually.

The implementation plan will include short- and long-term goals, a mechanism to assess progress, recommendations for increasing comparability, and recommendation(s) for special focus report(s). All potential issues will be considered in the draft implementation plan.

Defining and estimating other sources of North American pollutant releases

Depending on the status of development of trinational multi-media point-source data and the decision of the national PRTR representatives in conjunction with the CEC, and based on a review of the results of the phase 1 scoping exercise, the CEC may initiate or continue efforts to estimate North American emissions from nonpoint sources with the goal of including the information in future *Taking Stock* reports.

Support for the development/implementation/outreach of the Mexican RETC

The CEC will continue to place significant effort and focus on the further development and implementation of the mandatory Mexican RETC program. Regardless of the timing of the publication of the RETC regulation, the CEC is prepared to assist the Mexican RETC program with outreach and training activities, as appropriate. Although not all specific activities have been determined for 2000–2002, one main focus in 2000 will be to conduct outreach to facilities, industrial sectors and other potential partners. This activity will explore with interested industry sectors in the three countries the feasibility of launching a voluntary reporting program in Mexico for a specific region or sector(s) in 2001. This could also include improving technical guidance for industry in critical areas to report to the RETC. It is recognized that the need to build support regarding reporting is critical for this initiative to succeed. The ultimate goal is to obtain voluntary facility-specific data to be made public when it becomes available, with a view to moving towards the development of comparable PRTR systems in North America. Progress in obtaining data through such a program will be periodically reviewed with a view towards ensuring that CEC support in Mexico is directed towards activities that will most effectively contribute to the further development/implementation of the RETC.

Improving access to and exploring ways to enhance understanding of PRTR information; support for activities of multi-stakeholder expert task force

The CEC will continue to work with stakeholder groups on ways to promote access and enhance the use of information on pollutant releases and transfers in North America, including potential sponsorship of relevant activities of community groups. In 2000, the CEC will convene a North American multi-stakeholder expert task force to look at ways of improving access to and exploring ways to enhance understanding of PRTR information. The task force will focus on specific pilot initiative(s) or research question(s) designed to complement the existing focus of the North American PRTR project. The topic(s) to be addressed by the task force will be selected, taking into account feasibility and the level of interest expressed by the parties and other stakeholders, from a short list of possible topics to be compiled by the CEC Secretariat and the parties, with a view towards complementing the work of the existing consultative group. The task force will have: (1) 18 participants; (2) a balanced composition, by country and in terms of stakeholder groups (environmental NGOs, industry, government, labor, academia, health, aboriginal groups); (3) clearly defined task(s) and expected outputs; and (4) terms of reference, developed by the CEC Secretariat in consultation with the Alternate Representatives, to guide its work. Following a public nomination process, participants in the group will be selected by the CEC Secretariat in consultation with the national PRTR representatives in order to achieve an appropriate balance and ensure the necessary range of expertise for the selected topic(s). The activities of the group, as well as its reports and any other output(s), will be made publicly available. The initial report of the task force will be submitted to the CEC Secretariat and forwarded to the Alternate Representatives in late fall 2000, with other reports submitted as appropriate. The CEC will provide support to assist the task force in undertaking its task(s), including the organization of two or three meetings in 2000 facilitated by an independent third party.

Coordination with OECD, hemispheric PRTR activities and general outreach

The CEC and the national PRTR programs have been coordinating with the OECD and hemispheric efforts to avoid duplication of effort and assist in information dissemination. Also, the CEC receives numerous requests to participate in PRTR-related conferences throughout the year, and considers ongoing participation in these outreach activities essential to the program.

2000		
Action 1: Publication of <i>Taking Stock</i>—1998 data report		C\$109,000
Activity 1: Report development, including publication and distribution (phase 2)	C\$109,000	
Action 2: Consultant selection and initial work on <i>Taking Stock</i>—1999		C\$92,000
Activity 1: Report development (phase 1)	C\$92,000	
Action 3: Operation and updating of North American PRTR Internet site		C\$45,000
Action 4: Development of implementation plan to enhance the comparability of North American PRTRs		C\$5,000
Action 5: Support for the development/implementation/outreach of the Mexican RETC; outreach/preparations for voluntary program of industrial reporting		C\$81,000
Action 6: Improving access to and exploring ways to enhance understanding of PRTR information; support for activities of multi-stakeholder expert task force		C\$81,000
Action 7: Coordination with OECD, hemispheric PRTR activities and general outreach		C\$4,000
Total Resources Required		C\$417,000

Public Participation

Resolution 97–04 specifically directs the CEC Secretariat to encourage and provide for “meaningful public and governmental participation, including participation by nongovernmental organizations, business and industry, provincial, state, and municipal governments, academia, and technical and policy experts in developing its recommendations for enhanced comparability.”

One of the principal products of the CEC PRTR program is the development of the annual *Taking Stock* reports, which compare and analyze publicly available information in the national PRTR databases and provide insight on a North American basis. From the beginning, public feedback has been an essential component of the report development process. Although comments on the project are welcome at any time, the formal public consultation process includes:

- *Identifying persons* who may be interested in participating in the consultation phase. The CEC consults with the national PRTR representatives to determine if the list is an accurate reflection of interest seen in their countries.
- *Consultation* with the list of persons named on the consultative review list. For the *Taking Stock* reports published in October 1998 and July 1999, the CEC requested input on the structure of the reports, even prior to beginning the work. This was an effective method that allowed the CEC to take comments into account early in the process and will be utilized for subsequent *Taking Stock* reports. Therefore, the consultation phase, which consists of a public meeting followed by receipt of written comments, is concluded early in the process.
- *Response to comments*—a document detailing the written and verbal comments received, and how CEC intends to incorporate those comments into the report, is prepared at the conclusion of the formal public consultation.

Significant changes have been made to the *Taking Stock* reports in response to comments received.

The convening of a multi-stakeholder expert task force to improve access to and explore ways to enhance understanding of PRTR information will provide another mechanism for stakeholder involvement.

Capacity Building

Efforts to support the development and implementation of the Mexican PRTR system have been, and continue to be, a priority for the North American PRTR program as part of the objective of enhancing comparability of North American PRTRs. Capacity building has focused on community-based efforts to raise awareness of the utility of the information released by the project. Beyond the publication of the *Taking Stock* reports themselves, this has involved extensive community access-to-information meetings, coordination of the North American PRTR effort with OECD and other PRTR efforts worldwide, and the construction of a publicly accessible Internet site with the latest North America-wide information.

Expected Results

The objectives are reiterated below, matched with the corresponding activities.

- Provide an overview of North American pollutant releases and transfers that can assist in a better understanding of sources and handling of industrial pollution allowing national, state, provincial governments as well as industry and citizens to set priorities for pollution reduction. Invite reductions in North American pollutant releases and transfers through information comparison.
 - Publication of *Taking Stock—1997* (spring 2000)
 - Publication of *Taking Stock—1998* (December 2000)
 - Publication of *Taking Stock—1999* (December 2001)
 - Publication of *Taking Stock—2000* (December 2002)
- Assist citizens in integrating and understanding the ramifications of North American PRTR data.
 - Operation and updating of North American PRTR Internet site
 - Publication of map presenting publicly available data from three North American cities (Querétaro, Mexico; Port Charles, Louisiana; and Hamilton, Ontario)
 - Sponsorship of Canadian/US NGO participation in Mexico workshops (completed May 1999)
 - Convening of North American multi-stakeholder expert task force to improve access and explore ways to enhance understanding of PRTR information
- Work toward providing a summary of nonpoint source emissions in North America, in order to provide context for understanding sources of industrial pollution.
 - Defining and estimating other sources of North American pollutant releases—phase 1 background study (fall 1999)
 - Defining and estimating other sources of North American pollutant releases—phase 2 estimations (dependent on review of phase 1 results by CEC and national PRTR program representatives, conducted in fall 1999)
- Encourage enhanced comparability of North American PRTR systems.
 - Support for the development/implementation/outreach of the Mexican RETC (as needed and appropriate)
 - Voluntary program of industrial reporting in Mexico in place (December 2000)
 - Development of Implementation Plan to enhance the comparability of North American PRTRs (2000, then updated annually)
- Coordinate North American PRTR activities with similar international activities.
 - Ongoing CEC outreach efforts with OECD, UNITAR and other organizations

Expected Partners and/or Participants

The CEC intends to work with:

- national PRTR representatives, as designated by the national governments
- the list of consultative reviewers (copy available upon request)
- interested community groups and companies/industrial sectors (names are also included on the list of consultative reviewers)
- international agencies involved in similar work (especially OECD, UNITAR)

Actions 2001

Overview

Report on NA PRTR information—1999–2000 data

The objective of these activities is to develop the annual North American pollutant release and transfer reports based upon existing public inventory information. A separate report will be developed for each year's data. The *Taking Stock* report on 1999 data will enter development, and the report on 2000 data will be planned. Trend information from previous years' reports will be included. Mexican data will be incorporated as they become available. These activities include updating the methodology for making the data comparable. The development of the report includes a prior consultative review and a quality control review by a small group prior to finalization.

Operation and updating of North American PRTR Internet site

The trilingual Internet site, initiated in 1998 to present the matched subset of data from each of the three national PRTRs and provide information on the degree of comparability of the North American PRTRs and other information as agreed upon, will need to be continuously updated with the latest PRTR information. The site should continue to be modified to reflect current interests in North America.

Updating of an implementation plan to enhance the comparability of North American PRTRs

The national PRTR programs will discuss specific elements of their programs that may be appropriate to coordinate with the other programs to increase the degree of comparability of their programs. It is recognized that a greater effort should be placed in this area once Mexico has revised and finalized its PRTR regulations; some areas can be immediately addressed. The implementation plan will need to be updated annually.

The implementation plan will include short- and long-term goals, a mechanism to assess progress, recommendations for increasing comparability, and recommendation(s) for special focus report(s). All potential issues will be considered in the draft implementation plan.

Defining and estimating other sources of North American pollutant releases

Depending on the status of Mexican multi-media point source data and the decision of the national PRTR representatives in conjunction with the CEC, the CEC may initiate or continue efforts to estimate North American emissions from nonpoint sources with the goal of including the information in future *Taking Stock* reports.

Support for the development/implementation/outreach of the Mexican RETC

The CEC will continue to place significant effort and focus on the further development and implementation of the mandatory Mexican RETC program. Regardless of the timing of the publication of the RETC regulation, the CEC is prepared to assist the Mexican RETC program with outreach and training activities, as appropriate. Depending on the outcomes of preparatory activities in 2000 and the interest of facilities to participate, a voluntary program of industrial reporting for a specific region or sector(s) will be implemented in 2001. Other support activities in Mexico will be planned to complement the needs of the evolving Mexican program.

Improving access to and exploring ways to enhance understanding of PRTR information; support for activities of multi-stakeholder expert task force

The CEC will continue to work with stakeholder groups on ways to promote access and enhance the use of information on pollutant releases and transfers in North America, including potential sponsorship of relevant activities of community groups. The CEC will review the work of the multi-stakeholder task force on improving access to and exploring ways to enhance understanding of PRTR information, publish the task force results, and convene additional meetings as appropriate.

Coordination with OECD, hemispheric PRTR activities and general outreach

The CEC and the national PRTR programs have been coordinating with the OECD and hemispheric efforts to avoid duplication of effort and assist in information dissemination. Also, the CEC receives numerous requests to participate in PRTR-related conferences throughout the year, and considers ongoing participation in these outreach activities essential to the program.

2001		
Action 1: Publication of <i>Taking Stock—1999</i> data report		C\$109,000
Activity 1: Report development (phase 2)	C\$109,000	
Action 2: Consultant selection and initial work on <i>Taking Stock—2000</i>		C\$100,000
Activity 1: Report development (phase 1)	C\$100,000	
Action 3: Operation and updating of North American PRTR Internet site		C\$48,000
Action 4: Development of implementation plan to enhance the comparability of North American PRTRs		C\$5,000
Action 5: Defining and estimating other sources of North American pollutant releases		C\$26,000
Action 6: Support for the development/implementation/outreach of the Mexican RETC; implementation of voluntary program of industrial reporting		C\$65,000
Action 7: Improving access to and exploring ways to enhance understanding of PRTR information; support for activities of multi-stakeholder expert task force		C\$65,000
Action 8: Coordination with OECD, hemispheric PRTR activities and general outreach		C\$4,000
Total Resources Required		C\$422,000

Actions 2002

2002		
Action 1: Publication of <i>Taking Stock</i>—2000 data report		C\$109,000
Activity 1: Report development (phase 2)	C\$109,000	
Action 2: Consultant selection and initial work on <i>Taking Stock</i>—2001		C\$100,000
Activity 1: Report development (phase 1)	C\$100,000	
Action 3: Operation and updating of North American PRTR Internet site		C\$48,000
Action 4: Development of implementation plan to enhance the comparability of North American PRTRs		C\$5,000
Action 5: Defining and estimating other sources of North American pollutant releases		C\$26,000
Action 6: Support for the development/implementation/outreach of the Mexican RETC; implementation of voluntary program of industrial reporting		C\$65,000
Action 7: Improving access to and exploring ways to enhance understanding of PRTR information; support for activities of multi-stakeholder expert task force		C\$65,000
Action 8: Coordination with OECD, hemispheric PRTR activities and general outreach		C\$4,000
Total Resources Required		C\$422,000

Pollution Prevention

Objective

This program aims to illustrate the economic and environmental advantages associated with reducing waste and developing financial mechanisms to encourage pollution prevention. The program also includes a council-requested initiative on children's health and the environment.

Projects

The following projects will seek to achieve the goals of this program:

- *Capacity Building for Pollution Prevention*
- *First North American Symposium on Children's Health and the Environment*

3.4.1 Capacity Building for Pollution Prevention

Project Summary

Prevention is a successful strategy for reducing industrial pollution while at the same time improving productivity and competition. The CEC has been working on several projects that help encourage measures for pollution prevention among industries of North America: a diagnostic study of the current state of pollution prevention activities, case studies to illustrate their advantages, support for activities that disseminate information about the subject, and the creation of sources of financing for pollution prevention projects.

The project proposes to organize a pollution prevention round table that could take advantage of the experiences of different sectors to generate synergy and enrich pollution prevention initiatives. In this way the project seeks to encourage the creation of linkages and the exchange of experiences between different organizations, institutions and enterprises that work in this area in North America, with the objective of facilitating the implementation of such initiatives in the region.

Additionally, the project seeks to achieve the long-term self sufficiency of the Fund for Pollution Prevention (*Fondo de Prevención de la Contaminación—Fiprev*) and to encourage the North American industrial associations such as Mexico's Confederation of Industrial Chambers (*Confederación de Cámaras Industriales—Concamin*) and the Canadian and US business councils to participate in Fiprev's technical committee.

Goals and Objectives

The goal of this project is to undertake concrete actions that will promote pollution prevention in North America.

The objectives include:

- Promote the use of pollution prevention techniques and technologies among small and medium-size Mexican industries and support them in the development of their environmental management capacities.
- Support the application of pollution prevention measures in industry by means of the timely offering of technical assistance, information and financing for projects of this nature.
- Organize a round table on pollution prevention in Mexico.
- Encourage financial self-sufficiency for Fiprev so that it can continue financing projects that will prevent the generation of pollutants among small and medium-size industries of Mexico.
- Promote the formation of a group of donors in order to increase the financial resources of the fund and link it to 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) is to promote practices and policies for the prevention of pollution. Article 10(2) authorizes the CEC to develop recommendations related to pollution prevention strategies and the techniques necessary for compliance with the agreement.

Presently 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 related to the subject in North America need to be strengthened, and timely technical and financial assistance offered to small and medium-size industry in the region.

By strengthening the linkages between the different sectors involved in pollution prevention in North America, as well as through the consolidation of Fiprev, this project complements and consolidates the initiatives adopted thus far. Fiprev was created by means of Council Resolution 96-12, which gave shape to the memo of understanding between the CEC, the Mexican Foundation for Innovation and Technology Transfer for Small and Medium-size Business (*Fundación Mexicana para la Innovación y Transferencia de Tecnología en la Pequeña y Mediana Empresa, Funtec*) and Concamin.

It should be mentioned that a useful tool in pollution prevention has been the organization of round tables in which the benefits of these types of initiatives are disseminated, the problems encountered in the implementation are discussed and links are established between the different agencies involved. These types of projects have already been shown to be successful in Canada and the United States.

The promotion of the round table is an efficient complement to the activities that the CEC has been carrying out to support the orchestration of the prevention initiatives in Mexico's industrial sector. As an international organization promoting cooperation among the countries of North America in the development of activities oriented toward sustainable development in the region, it can carry out its role as a catalyst in the project as well as help to establish links with participants from round tables in the United States and Canada.

Progress to Date

In 1995, the CEC carried out a study to evaluate the state of pollution prevention activities in North America. The study resulted in a series of recommendations for the three countries, taking into consideration their differing economic and developmental conditions. The study concluded that the initiatives of the institutions that promote pollution prevention are 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 improve the situation, the document recommended:

- Promotion of information exchange to ensure that prevention activities are not isolated.
- The offering of technical support for pollution prevention activities.
- Starting up projects that will illustrate to businesspeople the benefits of prevention initiatives.
- Encouraging the creation of appropriate financial mechanisms for this type of project.
- Implementing industrial policies and practices that will stimulate companies to build relationships of productive linkages to incorporate principles of pollution prevention.

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

The CEC undertook ten pilot projects to illustrate the economic and environmental benefits of pollution prevention techniques and technologies: two tannery projects, one in glass production, one in paint production, two in foundries, two in synthetic resins, one in the manufacture of wire rods and one in the production of edible vegetable oils.

In 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. Each institution contributed US\$100,000 initial capital for Fiprev in 1996 and 1997. In 1999, the CEC contributed US\$75,000 and Funtec US\$150,000 more to increase the fund's capital. Additional amounts will be provided by other organizations through donations approved by Fiprev's technical committee.

Currently, Fiprev is financing activities of several small tanneries where considerable savings in the use of water and chemical substances were achieved through the reutilization of baths and other modifications in the processes. According to preliminary technical studies, it can be expected that through these changes in processing the tanneries will reduce their consumption of water and chemical substances between 60 and 80 percent. Likewise, wastewater discharges and the related environmental effects will diminish considerably.

As of July 1999, four credits of about 900,000 pesos (approximately US\$96,000) have been granted and nine more for over 2 million pesos (approximately US\$214,000) have been authorized. Of these financed projects, ten belong to the tanning industry and three to the areas of food, foundries and electroplating. Currently, requests for financing 34 more projects are being analyzed, primarily in the areas of tanneries and electroplating.

As of July 1999, repayment of credit had reached the sum of around 200,000 pesos (approximately US\$21,400), as agreed upon in the established schedule of payments. It is estimated that the environmental benefits generated by these four projects in the first semester of the year have resulted in a savings of 150 tons of chemical products and more than 3,000 cubic meters of water.

Actions 2000

Overview

The activities planned for the coming years will be oriented toward complementing and consolidating the initiatives adopted so far by the CEC in the area of pollution prevention. A round table on pollution prevention will be promoted to seek the involvement of all the parties involved in the issue in Mexico, especially relevant agencies in the United States and Canada. Of particular interest is the creation of a mechanism that, in the medium term, can provide institutional status for the round table, with an organizing committee composed of stakeholders from various sectors. The round table will include a report and analysis of the experiences and opportunities related to byproduct synergy based on the 1999 project Shared Approaches to Byproduct Synergy.

Full financial and operational self-sufficiency will be sought for Fiprev, which will necessitate an increase in its financial resources. The estimates of Funtec indicate the need for additional contributions by both the CEC and Funtec.

Likewise, actions to encourage the financing of pollution prevention projects in small and medium-size industry will be intensified. Another important activity will be to support the implementation of pollution prevention projects in interrelated industrial installations. Finally, the efforts necessary will be carried out to promote the linkage of Fiprev with regional interests to establish a round table on pollution prevention in North America.

2000	
Action 1: Activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	C\$1,000
Action 2: Two meetings of the Technical Committee of Fiprev	C\$7,000
Action 3: Three meetings of the Executive Committee of Fiprev	C\$1,000
Action 4: Two meetings of the Donor's Committee	C\$1,000
Action 5: Activities to obtain contributions from large companies and foundations for the fund	C\$1,000
Action 6: Seek mechanisms to transfer the CEC's actions related to Fiprev to the round table on pollution prevention	C\$2,000
Action 7: Contribution of the CEC to Fiprev	C\$111,000
Action 8: Round table on pollution prevention, including the report on the experiences and opportunities related to byproduct synergy	C\$30,000
Total Resources Required	C\$154,000

Public Participation

Public participation has been broadly considered in the project, since the project itself was actually initiated upon the proposal of a trinational group of experts who analyzed a document on pollution prevention strategies. Various industrial associations have been involved in the case studies and the participation of businesspeople has facilitated 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.

The Technical Committee that governs Fiprev brings together members of the financial, academic and industrial sectors, government experts and three representatives from JPAC (one per country). Additionally, the decision-making process of the Executive Committee brings together representatives from the federal and local governments, the academic sector, bankers and businesspeople.

By its very nature, the round table project considers the participation of practically all sectors of society.

Capacity Building

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

The demonstration projects have sought to involve businesspeople, company engineers, and, in some cases, students from fields of study related to 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 prevention initiatives even when the consultants are no longer available.

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

In time, the organization of the round table on pollution prevention would create and strengthen the links that facilitate the flow of information necessary for the promotion and efficient implementation of prevention practices.

Expected Results

The round table on pollution prevention will offer a forum for promoting the development, implementation and evaluation of the efforts aimed at avoiding, eliminating or reducing pollution at the original source in North America, especially in Mexico. This forum will promote dialogue and exchange of ideas among members of industry, financial institutions, the government, academia and nongovernmental organizations in order to coordinate their efforts in a more effective manner and facilitate the attainment of their goals. In this way, it will be possible to reduce the duplication of efforts and fill the existing voids in pollution prevention activities. An additional benefit will be the spirit of cooperation generated among those involved, encouraging the dissemination of the information and facilitating the transference of technology. The round table will offer the opportunity to establish informal discussions on specific themes, establish permanent contacts between participants and constitute a mechanism for generating consensus regarding effective strategies for the implementation of pollution prevention initiatives.

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

- Granting of financing to:
 - 30 new businesses during 2000,
 - 40 additional businesses in 2001, and
 - 60 more in 2002.

These actions are expected to bring the following environmental benefits:

- Reduction of water consumption by:
 - 56,000 cubic meters during 2000,
 - 70,000 cubic meters during 2001, and
 - 105,000 cubic meters during 2002.
- Reduce the generation of waste by:
 - 2,600 tons during 2000,
 - 3,200 tons during 2001, and
 - 4,800 tons during 2002.

Expected Partners and/or Participants

The institutions 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: Concamin, United States Council for International Business (USCIB), Canadian Council for International Business (CCIB), Funtec, the National Autonomous University of Mexico (*Universidad Nacional Autónoma de México*), the National Polytechnic Institute (*Instituto Politécnico Nacional*), the National Financier (*Nacional Financiera*), the National Institute of Ecology (*Instituto Nacional de Ecología*), the National Bank of Exterior Commerce (*Banco Nacional de Comercio Exterior*) and the World Environmental Center.

The participation and partnership of other related institutions is expected in the promotion of the round table on pollution prevention.

Actions 2001–2002

2001	
Action 1: Activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	C\$1,000
Action 2: Two meetings of the Technical Committee of Fiprev	C\$7,000
Action 3: Transfer the actions of Fiprev to the round table on pollution prevention	C\$7,000
Action 4: Promotion for the round table on pollution prevention	C\$74,000
Total Resources Required	C\$89,000

2002	
Action 1: Activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	C\$1,000
Action 2: Two meetings of the Technical Committee of Fiprev	C\$7,000
Action 3: Continue activities of the round table on pollution prevention	C\$21,000
Total Resources Required	C\$29,000

Calendar

2000	
Ongoing activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	January through December
Two meetings of the Technical Committee of Fiprev	April and November
Three meetings of the Executive Committee of Fiprev	March, July and October
Establishment of the Donor's Foundation for the fund	September
Ongoing activities to raise funds through foundations and large companies	January to December
Promotional meetings of the round table on pollution prevention	April and August

2001	
Ongoing activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	January through December
Two meetings of the Technical Committee of Fiprev	April and November
Three meetings of the Executive Committee of Fiprev	March, July and October
Establishment of the Donor's Foundation for the fund	September
Ongoing activities to raise funds through foundations and large companies	January through December
Meeting of the round table on pollution prevention	September

2002	
Ongoing activities to promote Fiprev among small and medium-size businesses through Funtec and Concamin	January through December
Two meetings of the Technical Committee of Fiprev	April and November
Three meetings of the Executive Committee of Fiprev	March, July and October
Ongoing activities to raise funds through foundations and large companies.	January through December
Continue the round table on pollution prevention	January through December

3.4.2 First North American Symposium on Children’s Health and the Environment

At the 1999 Regular Session in Banff, Canada, the Council of the CEC requested a special initiative for its next meeting, which would consider relevant scientific and policy aspects of Children’s Health and the Environment in North America. The event described below will assist the Council to determine how the CEC can best contribute to strengthening North American protection of its most important resource: children.

Symposium Organization

The CEC will work with the Parties to organize and host a symposium featuring leading North American experts in the field of children’s health and the environment. The symposium will discuss the state of scientific knowledge on the nature and significance of environmental threats to children’s health in light of recent scientific research and epidemiological studies, identify national approaches for the protection of children’s health from environmental threats, and explore areas for North American cooperation in particular areas of common concern. Following the symposium, government representatives will meet to discuss the findings of the symposium, discuss related government regulatory and policy initiatives, and explore opportunities for joint action.

The Secretariat will develop a short background paper and compilation of relevant materials in support of the symposium and follow-up discussions. The symposium background paper, presentation materials and proceedings will be published in advance of the 2000 Regular Session of Council.

Timeline:

(January–March) In consultation with the Parties, develop background paper, identify and invite expert symposium participants and government policy experts for follow-up meeting.

(May) Hold *First North American Symposium on Children’s Health and the Environment* with a follow-up meeting of government policy experts.

(May–June) Publish background paper, summary of symposium proceedings and related materials.

Budget	C\$142,000
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Law and Policy

Goals

The goal of the Law and Policy program area is to address regional priorities regarding obligations and commitments in NAAEC related to environmental standards and their implementation. Program initiatives monitor and report on regional trends in implementing and enforcing environmental standards, including innovations in regulation, economic instruments and voluntary initiatives. They also address NAAEC commitments to public participation in processes for establishing and enforcing environmental standards.

Program Initiatives

In order to accomplish this goal, work in this area is divided into two 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. It provides a regional forum for the exchange of information on alternative domestic strategies for implementing improved environmental standards, standard setting methodologies and mechanisms for public participation in standard setting processes. The program also supports the implementation of processes directed at greater regional compatibility of environmental technical regulations, standards and conformity assessment procedures consistent with NAFTA as well as promoting complementarity of voluntary initiatives.

The second program, 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, the program supports a regional forum of senior enforcement officials. It also addresses alternative approaches to effective enforcement and private access to remedies.

Environmental Standards and Performance

- Cooperation between Environmental Laboratories

Enforcement Cooperation

- North American Regional Enforcement Forum
- Enforcement and Compliance Capacity Building
- Indicators of Effective Environmental Enforcement

Environmental Standards and Performance

Objectives

The objectives of NAAEC include strengthening cooperation in the development and improvement of environmental laws and regulations, as well as compatibility of technical standards, including those of the private sector. Article 3 recognizes the right of each of the Parties to establish their own levels of domestic environmental protection and environmental development policies and priorities, and to adopt or modify accordingly their respective environmental laws and regulations. Each Party is also obligated to ensure that its laws and regulations provide for high levels of environmental protection and that it strives to continue to improve those laws and regulations. Article 4 obligates the Parties to implement processes to enable public notice and comments on any proposed laws, regulations, procedures and administrative rulings related to matters under the agreement. Finally, the Council is obligated 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.

The Environmental Standards and Performance Program is intended to provide a regional forum for the joint review of environmental standards and their implementation in law or policy. It is also directed at regional review of performance, including review of alternative approaches to meeting and exceeding environmental standards or objectives, including the evaluation or piloting of alternative regulatory or voluntary approaches. Finally, it examines opportunities for public participation in standard setting.

One focus of the program will be a pilot project on the comparability and compatibility of private sector standards. To this end, the program will explore the feasibility of the mutual recognition of quality assurance and control standards for public and private environmental laboratories in North America. Another area of the program will support the specific obligation of NAAEC under Article 10(3) (referred to above) by providing the legal standards component linkage to existing CEC programs.

Project

This program currently has the following project:

- Cooperation between Environmental Laboratories

4.1.1 Cooperation between Environmental Laboratories

Project Summary

The CEC will bring together the principal players from environmental laboratories and facilitate activities that help lead to mutual recognition of operating standards among environmental laboratories in North America in order to ensure the reliability of the information they produce.

There is an acknowledged need for such mutual recognition. Moreover, public and private laboratories in the region have expressed an interest in establishing means for comparing their findings and allowing mutual recognition of environmental measurements.

Goals and Objectives

The goal of this project is to encourage commerce in environmental laboratory services in the region through mutual recognition of operating standards.

The objectives of this project are to:

- identify the steps necessary to bring about mutual recognition of accreditation programs for the environmental laboratories of North America and
- evaluate the requirements for increasing the capacity of Mexico's environmental laboratories.

Rationale

Article 1210 of the North American Free Trade Agreement contains criteria for licensing and certification, the development of standards, and mutual recognition. These criteria must be based on objective and transparent rules on matters such as competence and the capacity for rendering a given service, must be no more complicated than necessary to guarantee good service, and must not constitute disguised barriers to the cross-border flow of services. NAFTA also states that the governments shall urge their respective professional organizations to prepare voluntary criteria for the mutual recognition and certification of professional services.

Among the objectives of the North American Agreement on Environmental Cooperation, signed by the governments of Mexico, Canada and the United States in 1993, is that of averting the creation of distortions or new barriers to commerce, to strengthen cooperation for making and improving environmental laws, regulations, procedures, policies, and practices. Article 10(2) authorizes the CEC to develop recommendations related to comparative techniques and methodologies for the collection and analysis of data, the management of information, and the sharing of data related to matters covered by the Agreement.

Mutual recognition of accreditation programs can facilitate the timely, reliable and comparable dissemination of environmental information across borders. The ultimate aim of this effort is to help those seeking the mutual recognition of laboratory certification throughout North America, ensuring that services of this kind do not become a potential barrier to trade.

The resulting benefits can be summarized as:

- avoiding the use of numerous systems of accreditation, depending on geographic area, work area or type of testing;
- reducing the number and costs of inspections through which the commercial laboratories must pass in order to comply with varying systems of accreditation;
- improving the quality of laboratories and the data they produce;
- improving acceptance and credibility of data among consumers and authorities;
- improving laboratory competitiveness;
- generating environmental data in a more uniform and comparable way;
- promoting the exchange of information and experience between laboratories and the involved entities;
- reducing non-tariff commercial barriers through:
 - uniform accreditation procedures in the three countries;
 - attainment of a uniform level of competence among accreditation organizations;
 - trust in the recognized national systems of accreditation;
 - acceptance of accreditation reports and certificates in the entire region (clients will require only one report, valid for the entire region); and
 - assurance of measurement reliability.

Progress to Date

In the United States, the National Voluntary Laboratory Accreditation Program (NVLAP) operates through the National Institute of Standards and Technology (NIST), which includes the participation of the federal government, state governments and a series of private laboratories carrying out a wide variety of tests, including environmental testing. The National Environmental Laboratory Accreditation Program (NELAP) is a program of the United States Environmental Protection Agency that verifies for state and federal accreditations and functions as an accreditation authority for some state laboratories.

In the United States, there are also other systems of accreditation in operation, such as the American Association for Laboratory Accreditation, a nonprofit organization that originated in the private sector. This association accredits laboratories in diverse areas including the environmental area.

Canada has the Program for the Accreditation of Laboratories (Palcan), administered by The Standards Council of Canada (SCC). This program works in a very similar way to NVLAP of the United States and under comparable criteria for the granting of accreditation to laboratories, although some differences do exist in their forms of operation.

In addition, the Canadian Association for Environmental Analytical Laboratories (CAEAL) is also a private non-profit organization through which environmental laboratories can obtain accreditation. The association works by means of a collaborative agreement with the SCC. Through this cooperation CAEAL operates the joint program SCC/CAEAL for the accreditation of environmental laboratories. CAEAL has been working on a number of initiatives for environmental testing and accreditation. Likewise the International Association for Environmental Testing Laboratories is also promoting mutual recognition in the certification of laboratory practices.

In Mexico, the accreditation of environmental laboratories has been the responsibility of the Standards Directorate (*Dirección General de Normas—DGN*) through the National Testing Laboratory Accreditation System (*Sistema Nacional de Acreditación de Laboratorios de Prueba—Sinalp*). Sinalp will cease to function as the accrediting institution for environmental laboratories and its powers will be transferred to the private sector through the National Accrediting Unit (*Unidad Nacional Acreditadora*). Under amendments to the Federal Law on Metrology and Standards (*Ley Federal sobre Metrología y Normalización—*published in the *Diario Oficial de la Federación* on 20 May 1997, and effective as of 1 August 1997), private sector accreditation agencies are now permitted in Mexico. Until such time as formal authorization for these private accreditation bodies is published in the *Diario Oficial*, the Standards Directorate under Mexico's Ministry of Trade and Industrial Development (*Secretaría de Comercio y Fomento Industrial—Secofi*) remains as the sole accreditation entity recognized for this purpose, both nationally and internationally.

During this transitional stage, private laboratories have been marking time and, as a result, the accreditation process is not functioning at optimal efficiency. In addition, many of the entities that use environmental laboratory services conduct their own laboratory assessments and maintain their own lists of “authorized laboratories,” becoming de facto “certifiers.”

Many of the criteria and guidelines used in the accreditation of environmental laboratories in the region are based on—and in many cases surpass—those contained in the guides: ISO/IEC 25 “General Requirements for the Competence of Testing and Calibration Laboratories” (*Requisitos Generales para la Competencia de Laboratorios de Pruebas y Calibración*) and ISO/IEC 58 “Accreditation Systems for Testing and Calibration Laboratories—General Requirements for their Operation and Recognition” (*Sistemas de Acreditación de Laboratorios de Pruebas y Calibración—Requisitos Generales para su Operación y Reconocimiento*).

It is necessary to encourage development of the recommendations on standards for these laboratories and certification procedures, as well as promoting cooperation for capacity building in environmental laboratories. There is a need for a common understanding of the benefits and challenges derived from the mutual recognition of operating standards among the three countries.

Actions 2000

Overview

The following describes the activities identified for the year 2000.

2000	
Action 1: Prepare a report on the status of environmental laboratory accreditation programs in North America, including an analysis of compatibility systems. The report must include recommendations on the steps to be taken for mutual recognition of accreditation procedures.	C\$30,000
Action 2: Meeting of experts to analyze the report and identify high priority actions which may be recommended as requiring follow-up by the Parties, the private sector or the CEC. This will include the identification of the capacity building needs of environmental laboratories.	C\$15,000
Action 3: Draw up an action plan for the private and public sectors for the implementation of the recommendations made in the report on the status of the environmental laboratory accreditation programs in North America, as well as those that came out of the meetings of experts.	C\$7,000
Total resources required	C\$52,000

Public Participation

This project has evolved through a process of public consultation, with meetings of experts and working groups that will be responsible for drawing up a plan of action governing the activities of the project.

Capacity Building

The project is directly involved in building the capacity of environmental laboratories. It includes links to accreditation systems that promote the exchange of information and experience as well as training programs for laboratory technicians that use the existing capacity of North American environmental laboratories.

Expected Results

The project will produce a clearer understanding of the laboratory accreditation programs in each country, and define the steps that must be taken to establish compatibility among systems and develop potential reciprocity in accreditation and mutual recognition of environmental laboratory practices.

During this period, the needs and opportunities for cooperation will be identified in order to increase the capacity of environmental laboratories.

Expected Partners and/or Participants

The project considers the participation of the appropriate government agencies of each country as well as the laboratory accreditation programs administered by them. Also expected is the participation of the independent environmental laboratory accreditation associations and the public and private laboratories in each of the three nations.

Linkages to other CEC Projects

This project will further the goals and objectives in the areas of capacity building and pollution prevention. Ultimately, mutual recognition would support the information needs of other programs and projects by providing comparable data.

Actions 2001

2001	
To be determined	
Total resources required	TBD

Actions 2002

2002	
To be determined	
Total resources required	TBD

Enforcement Cooperation

Objectives

The Enforcement Cooperation Program, established by the CEC in 1995, is directed at facilitating enhanced North American cooperation in environmental enforcement and compliance. Its overriding objectives are to:

- provide a forum for North American cooperation in environmental enforcement and compliance;
- support initiatives for sharing enforcement-related strategies, expertise and technical knowledge;
- support capacity building in effective enforcement and enhanced compliance;
- facilitate the development and implementation of trilateral enforcement cooperation programs and initiatives;
- examine alternative approaches to enforcement and compliance; and
- support the Parties in the preparation of annual enforcement reports and the examination of improved indicators or measures of effective enforcement and compliance.

The Enforcement Cooperation Program responds directly to obligations and opportunities arising under NAAEC, including Articles 5, 6, 7, 10(4), and 12(2)(c), which collectively impose obligations on the Parties to enforce their respective environmental laws effectively, in accordance with an agreed-upon framework; to pursue avenues of cooperation to this end; to implement the Article 6 obligation to provide private access to remedies; and to provide an annual public report on the enforcement of environmental laws.

The program is developed and delivered in consultation with the North American Working Group on Environmental Enforcement and Compliance Cooperation, which was officially constituted by the Council in August 1996, and mandated to support cooperation and joint initiatives for environmental enforcement and compliance; the exchange of information, expertise, and joint training; and charged with preparing the annual report on environmental enforcement. In October 1996, the North American Wildlife Enforcement Group (NAWEG) was made an affiliate to facilitate cooperation in wildlife enforcement.

The Enforcement Cooperation Program attempts to address issues and concerns about environmental enforcement and compliance brought to the attention of the CEC by government agencies, industry, NGOs, academics, and experts in the area. Efforts are made to monitor current issues or innovations in the field of enforcement and compliance and to facilitate the exchange of information on, discussion about, and review of these common matters.

Projects

The Enforcement Cooperation Program will be achieved through the following three projects:

- The North American Regional Enforcement Forum
- Enforcement and Compliance Capacity Building
- Indicators of Effective Environmental Enforcement

4.2.1 North American Regional Enforcement Forum

Project Summary

Consistent with the Council's direction, the project provides ongoing support to the North American Working Group on Enforcement and Compliance Cooperation (EWG) and the North American Wildlife Enforcement Group (NAWEG) in the delivery of their mandates. This ensures for regional exchange of information, expertise and strategies for effective enforcement and enhanced compliance. It also includes support to cooperative efforts for the preparation of the Parties' annual reports on enforcement-related obligations. In the next three years, efforts will be made to expand the network to include other environmental sectors, such as fisheries, parks and forestry as well as federal, state and provincial agencies, and tribal or first nation governments.

Goals and Objectives

The overall goal for this project is to provide support to the EWG and NAWEG in carrying out their mandates in enhancing cooperation among the Parties in environmental enforcement and compliance.

The objectives of this project for the next three years include the following:

- enable the Parties to act on their respective mandates related to enforcement, including preparing the report on environmental enforcement obligations and activities for the CEC annual report as well as separate biannual enforcement reports for the years 2000 and 2002;
- support efforts to expand the membership of the working groups to include other related sectors and agencies;
- outreach to other related networks and organizations; and
- facilitate improved communication with the public, including involvement in the selection of priority areas for cooperation.

Rationale

This program area responds directly to the Parties' Article 5 obligation of effective enforcement and the Council's Article 10(4) obligation to foster technical cooperation to this end. The initiative also responds directly to Council Resolution 96-06 establishing the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG). The EWG, composed of senior-level environmental enforcement officials appointed by the Parties, is mandated by the Council Resolution to:

- take action to strengthen cooperation among the Parties in environmental enforcement and compliance;
- enhance cooperation among the environmental enforcement agencies in recognition of shared enforcement and compliance challenges;
- facilitate and support cooperative enforcement and compliance initiatives;
- exchange information and experiences with alternative approaches to enforcement and compliance;
- facilitate training opportunities among the three Parties;
- prepare on behalf of the Parties the report on environmental enforcement obligations and activities for the CEC annual report;
- recommend to the CEC program priorities relating to environmental enforcement and compliance; and
- establish or recognize any subgroups, task forces, or expert groups necessary to implement this mandate, consistent with the annual program and budget, as approved by the Council.

The EWG also includes in its membership the North American Wildlife Enforcement Group (NAWEG), a regional network of wildlife enforcement officials. The program area further responds to the *Shared Agenda for Action* recommendation that the CEC Enforcement Cooperation Program concentrate on compliance assistance and information sharing as well as promoting improved governmental expertise in alternative ways to encourage better environmental performance.

Progress to Date

The EWG was constituted in 1995, with members officially appointed by the Parties since June 1996. NAWEG was made an affiliate in the fall of 1996 to ensure regional linkage on wildlife enforcement matters. Its additional participation as a subgroup of the Trilateral Committee for Wildlife Ecosystem Conservation and Management helps facilitate additional regional dialogue on both enforcement and broader policy matters.

Since 1995, the CEC has provided support for meetings and communications among the members of the EWG, NAWEG and related task groups. Meetings of the EWG and NAWEG have been coordinated to also enable their effective participation in the development and delivery of the Enforcement Cooperation Program. 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 (EMS) and other voluntary approaches to compliance, and enforcement of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Continued support to the EWG will ensure continuity of these cooperative regional enforcement efforts. Both the EWG and NAWEG are

becoming widely recognized as model regional enforcement networks. They also provide a ready point of contact for enforcement agencies and entities worldwide, including Interpol, the World Customs Organization, the International Network on Environmental Compliance and Enforcement (INECE) and other regional enforcement networks.

The EWG and NAWEG coordinated the preparation of the 1995, 1996, 1997, and 1998 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.

Actions 2000

2000	
Action 1: Semi-annual meetings to advise on CEC Enforcement Program; ongoing communication between the EWG, NAWEG and task groups	C\$44,000
Action 2: Adjunct meetings of enforcement task groups	C\$7,000
Action 3: Interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws	C\$7,000
Action 4: Preparation of the enforcement section to the annual report; preparation of a special year 2000 enforcement report	C\$59,000
Action 5: Public outreach through (a) consultations with JPAC, NACs and other groups; (b) annual publication of CEC program bulletins; (c) distribution of related reports to public; (d) organization of public seminar on an enforcement topic to coincide with CEC Annual Meeting of Council	C\$12,000
Action 6: Outreach to other regional and international networks; EWG outreach to provincial/state agencies; NAWEG outreach to other agencies (marine, parks, including state/provincial agencies)	C\$3,000
Total Resources Required	C\$132,000

Public Participation

As outlined above, a major objective for this project over the next three years will be improving outreach to the public. To date, the EWG and NAWEG have initiated consultations with JPAC. Project bulletins will be published and distributed, providing updates on the membership, priorities and activities of the regional enforcement networks. All program reports and bulletins are now available in hard copy and on the CEC home page. In addition, mechanisms will be explored to allow for public involvement in the selection of priority enforcement matters meriting regional attention. In the planning and delivery of specific regional enforcement initiatives, attention will be placed on involving the interested public, including NGOs, industry, academics, and other groups where appropriate.

Capacity Building

One of the direct benefits of the CEC support to the regional enforcement networks has been the immediate enhanced capacity of the Parties' environmental and wildlife enforcement agencies to work cooperatively in meeting the obligation of effective enforcement. The working groups have additionally spawned a number of joint initiatives directed at enhanced field capacity to track and enforce environmental and wildlife laws. These have included the series of regional seminars on enforcement of laws regulating trade in endangered species; a project to explore potential avenues for improving cooperation in the tracking and enforcement of laws regulating transborder movement of hazardous wastes and CFCs; a project to improve the capacity of maquiladora industries to participate in pollution prevention and voluntary compliance programs; a cooperative information exchange initiative to improve respective policies and programs on voluntary compliance; and a joint initiative to develop improved criteria to evaluate the effectiveness of the enforcement policies and strategies of the Parties.

Expected Results

This project will provide continued support to these regional networks in furtherance of their mandates for regional cooperation in effective environmental enforcement and to help them serve as fora for development of the CEC Enforcement Cooperation Program. This includes continued responsibility for coordinating and preparing the report on enforcement-related obligations under NAAEC, including a special year 2000 enforcement report.

The challenge for the next three years will be to reexamine the structure of and representation on the working groups to allow the participation of other relevant agencies, for example, fisheries, marine, parks and other levels of government, including provincial and state enforcement agencies. As discussed in the Public Participation section above, a parallel challenge for the immediate future is finding means to accommodate requests from the public, including NGOs, regulated industry, and academics, in the design and delivery of the Enforcement Cooperation Program.

The North American Wildlife Enforcement Group (NAWEG) has been recognized as the North American regional link to the Interpol Wildlife Crimes Subgroup. Similar linkages are being explored with the World Customs Organization (WCO). Invitations have been extended to explore partnerships and exchanges with other enforcement networks, including the International Network on Environmental Compliance and Enforcement (INECE) and a proposed Americas-wide network under an OAS-sponsored initiative.

The Secretariat will be exploring the option of hyperlinking the enforcement-related home pages of the Parties' agencies with the CEC home page to facilitate access to enforcement information and exchange of strategies. Alternative mechanisms will be explored to both inform and involve the North American public in the efforts of the regional networks.

Expected Partners and/or Participants

The project will continue to be delivered in partnership with North American environmental and wildlife agencies. Additional efforts will be focused on outreach to expand the North American enforcement network to other related agencies, including state- and provincial-level agencies that are exploring their priority issues and needs for ensuring effective enforcement. The CEC will continue to deliver the project in partnership with the North American Wildlife Enforcement Group and the Enforcement Working Group. Partnerships will continue to be explored with other regional enforcement networks and related international organizations, such as INECE and Interpol, and with other relevant individuals and organizations. JPAC has identified this area as a priority. JPAC has been following the work of NAWEG and EWG and will be invited to participate in the proposed seminar.

Linkages to other CEC Projects

The work of all CEC projects in the Enforcement Cooperation Program is supervised by the Regional Enforcement Forum. There are ongoing linkages with the Sound Management of Chemicals program and with the project in the Environment, Economy and Trade Area on Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species.

Actions 2001

2001	
Action 1: Semi-annual meetings to advise on CEC Enforcement Cooperation program; ongoing communication between the EWG, NAWEG and task groups	C\$44,000
Action 2: Adjunct meetings of enforcement task groups	C\$7,000
Action 3: Interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws	C\$7,000
Action 4: Coordination of the preparation of the enforcement section of the annual report	C\$7,000
Action 5: Public outreach through (a) consultations with JPAC, NACs, other groups; (b) annual publication of CEC program bulletins; (c) distribution of related reports to public	C\$15,000
Action 6: Outreach to other regional and international networks; EWG outreach to provincial/state agencies as well to INECE and OAS Environmental Enforcement Task Group; NAWEG outreach to other agencies (marine, parks), including state/provincial agencies as well as Interpol and World Customs Organization	C\$10,000
Total Resources Required	C\$90,000

Actions 2002

2002	
Action 1: Semi-annual meetings to advise on CEC Enforcement Program; ongoing communication between the EWG, NAWEG and task groups	C\$44,000
Action 2: Adjunct meetings of enforcement task groups	C\$7,000
Action 3: Interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws	C\$7,000
Action 4: Coordination of the preparation of the enforcement section of the annual report; preparation of biannual year 2002 enforcement report	C\$59,000
Action 5: Public outreach through (a) consultations with JPAC, NACs, other groups; (b) annual publication of CEC program bulletins; (c) distribution of related reports to public	C\$7,000
Action 6: Outreach to other regional and international networks. EWG outreach to provincial/state agencies. NAWEG outreach to other agencies (marine, parks), including state/provincial agencies	C\$7,000
Total Resources Required	C\$131,000

4.2.2 Enforcement and Compliance Capacity Building

Project Summary

This ongoing project supports key initiatives directed at promoting cooperation among the Parties to enhance their respective capacities for effectively enforcing their environmental laws and regulations. Consistent with NAAEC, it responds to obligations to enhance skills of both government and community. The project has two branches, corresponding to the administrative division of tasks in government: (1) wildlife enforcement and (2) pollution control tracking and enforcement. Within each of these two areas, the CEC capacity building program focuses on matters identified by the Parties as priorities.

Under the leadership of the North American Wildlife Enforcement Group (NAWEG), the wildlife enforcement project continues to focus on building regional capacity and expertise for enforcing North American laws implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and fostering a regional approach to common enforcement obligations and priorities.

The second branch continues work that responds to the CEC Council direction to the Enforcement Working Group to explore the relationship between voluntary environmental management system (EMS) programs, including ISO 14001, and government programs to enforce, verify, and promote compliance with environmental laws and regulations. Opportunities to exchange information and develop cooperative positions regarding the role and effect of EMSs on compliance and environmental performance are also explored under this aspect of the project.

Goals and Objectives

The goal of this project is to build regional capacity and expertise for enforcement and compliance activities with respect to wildlife and pollution control issues.

The objectives of this project include:

- design and delivery of joint regional environmental and wildlife enforcement capacity building initiatives;
- examination of alternative approaches to effective enforcement and enhanced compliance with environmental and wildlife laws;
- support to development of regional enforcement data bases and enhanced opportunities for intergovernmental exchange of enforcement related information;
- support to the cooperative evaluation of the effectiveness of environmental management systems (including ISO 14001) in enhancing pollution prevention and overall environmental performance and compliance, including the exploration of pilot projects; and
- support to the delivery of the Parties' Article 6 obligation regarding private access to remedies.

Rationale

The project arises from the Parties' obligations under Article 5 of NAAEC to "effectively enforce their respective environmental laws" and the Council obligation under Article 10(4) to encourage effective enforcement and compliance and technical cooperation in that regard. In addition, Article 6 requires the Parties to provide private right of access to remedies.

To support fulfillment of these obligations, the Council, through Resolution 96-06, established the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), whose mandate includes supporting capacity building in effective enforcement and enhanced compliance. In addition, the mandate of the adjunct North American Wildlife Enforcement Group (NAWEG) encompasses cooperation in capacity building for enforcement of wildlife laws and regulations. The program area further reflects the direction provided by the CEC Council in *A Shared Agenda for Action* to provide compliance assistance and to enhance capacity to track and enforce CITES violations.

Under the leadership of NAWEG, the Parties have been able to develop a long-term strategy and agenda for ensuring the effective enforcement of their respective laws regulating the protection of wildlife, currently targeting protection of endangered species consistent with the obligations prevailing under CITES. This project area is designed to support two objectives: building enforcement capacity; and building a regional enforcement network. The projects are designed to build on previous work and achievements and to lead into the next phases of a regional strategy for effective enforcement. For example, the 2000 conference on trophy hunting corresponds to a priority identified by enforcement officials from all three countries to focus on the enforcement issues for exchange of information on the regulatory regimes, the nature of legal and illegal activities, strategies to detect and deter illegal activities, and involvement of other groups in ensuring compliance.

The second project area was initiated in response to the expanding interest in implementation of various environmental management systems (EMSs), including their potential role in government enforcement and compliance programs and their potential effect in improving environmental compliance and performance. Private voluntary standards or initiatives, such as ISO 14000 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 to implement EMSs in court orders resolving 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 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.

Progress to Date

The Enforcement Cooperation Program, under the guidance of the EWG and NAWEG, has to date successfully concentrated the capacity building project in the following priority areas:

1. Wildlife Enforcement

a) CITES tracking and enforcement

Since 1995, cooperative efforts for capacity building have targeted enhanced capability to track and enforce regional implementation of CITES and related laws in North America. By the end of 1999, four regional training programs will have been delivered to enforcement officials on critical areas of trade in endangered species of birds, furbearing mammals, reptiles and coral and marine invertebrates.

b) Wildlife forensics

In 1997, the CEC, in cooperation with NAWEG and US National Fish and Wildlife Forensics Laboratory and the *Universidad Nacional Autónoma*, 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.

c) Training exchanges

In 1998 and 1999 the CEC provided support for training exchanges. Under those joint initiatives, subsidies were provided for the participation of wildlife enforcement officials in each others' training programs to facilitate the exchange 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.

2. Pollution Control Tracking and Enforcement

A second identified priority area for enforcement capacity building is the tracking and enforcement of pollution control laws. To date, emphasis has been in three areas:

a) Capacity to track and enforce laws regulating the transboundary movement of hazardous wastes and CFCs in North America

Since 1996 the EWG has identified the need for cooperation improving the capacity to track and enforce laws regulating the transborder movement of hazardous wastes and CFCs. In 1999, the CEC published a needs assessment report for the tracking and enforcement of transborder hazardous waste shipments in North America as background for a trilateral meeting of hazardous waste enforcement officials. The product is a Regional Action Plan for exchanging tracking databases and compliance data; enhancing capacity to gather, utilize and exchange intelligence; improving compatibility in tracking systems; conducting training on intelligence-gathering, regional law and policy, safety, emergency response, and spill response; and understanding the nature of the regional illegal trade and the key players involved.

b) Sound Management of Chemicals

Since 1997, the Enforcement Working Group has been invited to participate in discussions on the implementation of action plans for the Sound Management of Chemicals Program. It is proposed that the EWG be invited to participate in the development stage of the action plans to ensure that alternative compliance strategies are also considered at the front end.

c) Alternative approaches to achieving compliance

The Enforcement Cooperation Program has been involved in the area of alternative or innovative tools for enhancing compliance and pollution prevention, including government and private sector voluntary compliance mechanisms and environmental management systems. The CEC has provided support for a series of joint information meetings for the maquiladora industries in the Mexican-US border area, with the objective of encouraging greater participation in private and government-driven pollution prevention and voluntary compliance programs.

The CEC has also supported a joint initiative for a regional policy on environmental management systems (EMSs) and compliance, reflected in Council Resolution 97-05 on “Future Cooperation regarding Environmental Management Systems and Compliance” and the related report by the EWG to Council in 1998. In 1999 a public forum involving participants from industry, government and nongovernmental groups was held in Washington, DC to explore EMS core elements needed to promote compliance. The project has also involved support for national initiatives to 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.

In addition to the capacity-building work described, NAWEG has also focused on building a regional network. Through the support of the CEC, NAWEG has been officially established as a regional forum for advice and assistance to the CEC and the Trilateral Forum on Wildlife Management. NAWEG is providing a forum for the development of regional priorities and strategies for international organizations and agencies, including CITES, Interpol, and the World Customs Organization. This regional forum has enabled the agencies to identify critical actions needed to improve North American capacity to detect and enforce wildlife laws, including the need for a regional wildlife forensics network.

Actions 2000

2000		
Action 1: Wildlife and CITES Tracking and Enforcement Capacity		C\$125,000
Activity 1: Organize and hold in Mexico a workshop on enforcement issues for trophy hunting, involving both public and private sector	C\$89,000	
Activity 2: Ongoing support to wildlife enforcement training network and partnership; update of manual on enforcement training courses	C\$7,000	
Activity 3: Collaboration on project on trade in wildlife, with attention to possible linkages with trophy hunting seminar	C\$3,000	
Activity 4: Further work to finalize and publish a wildlife forensics directory	C\$4,000	
Activity 5: Follow-up to the 1999 forensics seminar to provide training materials on wildlife forensics and conduct analysis of means under NAFTA to overcome barriers to exchange of technology and forensic material	C\$15,000	
Activity 6: Support to networking and outreach to Central American and Caribbean agencies to identify priorities for joint capacity-building initiatives and to explore potential sources of support and exchange of enforcement data and intelligence	C\$7,000	
Action 2: Pollution Control Tracking and Enforcement Capacity		C\$67,000
Activity 1: Continued joint initiative for the piloting and evaluation of EMSs as mechanisms to promote and improve compliance with environmental laws and regulations; review of country progress reports on EMS pilot initiatives; analysis of attempts to measure effect on compliance	C\$30,000	
Activity 2: Follow-up to 1999 EMS workshop in Washington, DC; continued joint initiative to develop concept of “core elements” of compliance-focused EMS and development of measurement framework or indicators to evaluate effectiveness of proposed “core elements”	C\$15,000	
Activity 3: Public Workshop in Canada on “core elements” of a compliance-focused EMS	C\$15,000	
Activity 4: Development of a compliance strategy in support of the Sound Management of Chemicals action plans	C\$7,000	
Total Resources Required		C\$192,000

Public participation

A number of specific initiatives will be incorporated in this project over the next few years, both to ensure that the views of the public and regulated industry are considered in selecting priorities for cooperative action, and for the delivery stage of specific initiatives. One potential initiative, subject to availability of funds, is a review of current policy and practices of the Parties in implementing their respective obligations under Article 6 to extend prescribed opportunities for the public to participate in enforcement processes of the respective Parties. A second initiative involves dialogue between the EWG, NAWEG and public on the issue of priorities and alternative strategies for improved enforcement. In 2000, particular attention will be paid to the inclusion of the interested public in the seminar on enforcement issues for trophy hunting.

Expected Results

Support for capacity building for effective environmental enforcement and compliance will be phased in over time, reinforcing ongoing efforts and reflecting the allocation of resources to this project. Wildlife enforcement capacity-building initiatives will involve continued support to the joint efforts of NAWEG, in its pursuit of cooperative approaches to sharing information and expertise in order to enhance the capacity to track and enforce wildlife laws. In the wildlife area particular attention will be given in the next few years to expanding NAWEG's activities, so far as resources permit, to include other national, state and provincial agencies and associations.

Pollution control tracking and enforcement initiatives will address three priorities: (1) evaluation of environmental management systems and compliance, (2) enforcement and compliance aspects of the Sound Management of Chemicals, and (3) support for regional tracking and enforcement of hazardous wastes and CFCs.

1. Wildlife Enforcement

Future priorities for joint activity in this area include:

- a) support to the development of a regional network on wildlife forensics as a follow-up to the 1999 meeting of North American wildlife enforcement and forensic scientists;
- b) joint production of training materials on field-level techniques for tracking and responding to CITES violations and on wildlife forensics;
- c) delivery of a joint seminar on the enforcement of laws regulating trophy hunting;
- d) planning work for a joint seminar for wildlife and pollution control enforcement officials to enhance capacity to respond to violations concerning wildlife mortality from environmental contaminants;
- e) joint consultation in enforcement protocols, for example, for the return of confiscated wildlife and the sharing of real time or historical information;
- f) consultation with relevant NGOs on potential avenues of cooperation on specific projects to improve compliance with wildlife and related laws.

2. Pollution Control Tracking and Enforcement Capacity

Future priorities for capacity building in this area include:

- tracking and enforcement of hazardous wastes and CFCs;
- participation in the Sound Management of Chemicals initiative to contribute enforcement and compliance expertise to the strategies and action plans;
- cooperative analysis of the effectiveness of EMSs (including ISO 14001) in enhancing pollution prevention and overall environmental performance and compliance, including:
 - i) joint review of domestic experience with pilot application of voluntary compliance mechanisms, including environmental management systems;
 - ii) continuing to cooperate in the review of the effectiveness of EMSs (including ISO 14001) in enhancing pollution control, overall environmental performance and compliance, including exploration of cooperative pilot projects;

- iii) continuing to explore needs and opportunities for awareness of EMSs by small to medium-size enterprises and ensure their environmental compliance and improved performance;
- iv) continuing to exchange information with other countries, regions and organizations regarding polices and programs that involve EMSs and compliance; and
- v) continuing to examine and, as appropriate, make recommendations to the Council on core elements of EMSs (including ISO 14001) for consideration in domestic polices and programs;
- exploration of enhanced opportunities for effective involvement of the public in enforcement processes.

Expected Partners and/or Participants

Efforts will be made to work with industry groups in measuring the impact of EMSs on compliance. Partnerships will continue between the CEC and the Parties' pollution control and wildlife enforcement agencies, without whose cooperation the program would not be possible. Efforts have already been made to expand the regional enforcement network for capacity building to state and provincial agencies. These efforts will be extended to also include other related agencies responsible for fisheries and parks, as well as tribal governments and First Nations. In the future, partnerships will also be sought with nongovernmental organizations regarding exercise of their rights and opportunities under Article 6 of NAAEC relating to private access to remedies as a means to enhance compliance with and enforcement of environmental laws and regulations. Moreover, these partnerships will help to ensure observance of NAAEC commitments to participation and transparency.

Efforts will be intensified to forge working relationships with other institutions and agencies such as the World Bank, UNEP and OAS to explore opportunities for cost sharing in capacity building.

Linkages to other CEC Projects

Effective delivery of this capacity-building initiative will require enhanced interaction among the various related working groups and projects in the CEC, including:

- the Sound Management of Chemicals initiative;
- the North American Bird Conservation Initiative within the North American Biodiversity Conservation Mechanisms project; and
- the initiative under the Environmental Standards and Performance Program to examine technical capacity and accreditation in environmental laboratories in order to ensure consideration of enforcement needs and priorities in design and implementation of the projects.

More specifically, the Pollution Control Tracking and Enforcement component maintains ongoing links with the Sound Management of Chemicals program by sending a representative to attend SMOC working group meetings and provide advice on enforcement aspects to the latter group. NAWEG representatives participate in the planning for the project on Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species, which is part of the Environment, Economy and Trade program area.

Actions 2001

2001		
Action 1: Wildlife and CITES Tracking and Enforcement Capacity		C\$111,000
Activity 1: Planning work for 2002 seminar on endangered plant species	C\$15,000	
Activity 2: Wildlife enforcement training network and partnership	C\$7,000	
Activity 3: Collaboration on project on trade in wildlife	C\$15,000	
Activity 4: Follow-up to conference on enforcement issues for trophy hunting	C\$15,000	
Activity 5: Support to networking and outreach to other agencies to identify priorities for joint capacity-building initiatives and to explore potential sources of support	C\$7,000	
Activity 6: Training video on evasion techniques	C\$52,000	
Action 2: Pollution Control Tracking and Enforcement Capacity		C\$96,000
Activity 1: Participation in Sound Management of Chemicals initiative to identify alternatives for improved control through enhanced compliance (specific action plans for priority chemicals)	C\$7,000	
Activity 2: Ongoing support to joint initiative to examine EMS as a mechanism to enhance compliance including outreach to other regions	C\$74,000	
Activity 3: Identification and planning for seminar on capacity-building priority area	C\$15,000	
Total Resources Required		C\$207,000

Actions 2002

2002		
Action 1: Wildlife and CITES Tracking and Enforcement Capacity		C\$140,000
Activity 1: Seminar on trade in endangered plant species	C\$111,000	
Activity 2: Wildlife enforcement training network and partnership	C\$7,000	
Activity 3: Collaboration on project on trade in wildlife	C\$15,000	
Activity 4: Support to networking and outreach to other agencies to identify priorities for joint capacity-building initiatives and to explore potential sources of support	C\$7,000	
Action 2: Pollution Control Tracking and Enforcement Capacity		C\$163,000
Activity 1: Continued work on EMS and compliance	C\$59,000	
Activity 2: Seminar on a capacity building priority area identified in 2001	C\$89,000	
Activity 3: Project to examine obligation to provide private remedies	C\$15,000	
Total Resources Required		C\$303,000

4.2.3 Indicators of Effective Environmental Enforcement

Project Summary

This project involves a cooperative and multi-stakeholder effort to explore and develop indicators for measuring and evaluating the effectiveness of the enforcement and compliance strategies of each Party. The project promotes the interagency exchange of cutting-edge ideas and experience to enhance the measurement and accountability of programs and policies. The ultimate goal is the development of effective North American environmental enforcement and compliance indicators.

Goals and Objectives

The goal of this project is to assist the Parties in developing indicators for measuring and evaluating the effectiveness of their respective enforcement and compliance strategies.

The objectives of this project include:

1. In the short term:
 - document actions to date by the Parties to implement criteria and processes for evaluating and responding to indicators of effectiveness of their respective environmental enforcement policies, programs and strategies;
 - facilitate intergovernmental exchange of information and expertise in the development and use of indicators of effective enforcement; and
 - provide a forum for dialogue among government, public and industry on the development and use of indicators, and analysis of trends in each country's performance with a view to establishing a baseline.
2. In the long term:
 - explore the feasibility of North American indicators of effective environmental enforcement policies, programs and strategies;
 - support the development of more effective indicators; and
 - provide public reports on the governmental delivery of enforcement obligations, using the agreed indicators.

Rationale

This project is directly related to the Parties' obligations under NAAEC to "effectively enforce their respective environmental laws." The Council is mandated to encourage the technical cooperation of the Parties toward effective enforcement and compliance with their respective environmental laws. In support of this obligation, the CEC, under the guidance of the Enforcement Working Group, in 1997 initiated a project to examine approaches to measuring the performance of enforcement and compliance programs. Consistent with NAAEC principles of transparency and participation, the intention is to engage the North American public and regulated industry in the development of criteria for use in improving and evaluating national enforcement and compliance policies, strategies and responses.

Progress to Date

Since 1997, baseline reports have been prepared by the CEC on:

- current systems and proposed new programs in each country for measuring, reporting, and evaluating enforcement and compliance, including initiatives by government, industry and the public;
- the use of public-response indicators in Canada for implementing effective enforcement strategies; and
- a brief survey of European experiences with measuring and reporting on environmental enforcement and compliance.

These background reports served the foundation for a CEC-sponsored Dialogue on Indicators of Effective Environmental Enforcement in May 1998 in Puebla, Mexico, with representatives of government, industry and the public. Proceedings of that dialogue were distributed to the public for review and comment in 1999 and will serve as the building block for the next phase. The Parties have agreed that this next phase will be a pilot to develop indicators in the area of hazardous wastes. They are in the process of compiling data for analysis and reporting. The CEC initiative is one of many worldwide efforts as countries attempt to come to grips with ways to measure and evaluate their respective programs and strategies.

Actions 2000

2000	
Action 1: Meeting of the EWG Task Group and Expert Advisory Group to review proposed indicators/ methodologies and progress to date in pilot area of hazardous waste; consideration of use by all three parties of agreed indicators; think tank of experts from government and private sector to review initial work	C\$44,000
Action 2: Progress report to CEC Council on development and testing of alternative indicators, and proposal for annual report; coordination with work of EMS task group regarding measurement framework or indicators for EMS	C\$22,000
Action 3: Ongoing exchange of information and expertise in the development and application of indicators	C\$7,000
Total Resources Required	C\$73,000

Public Participation

From its inception, the project was designed to involve the public, including NGOs, academics, and the regulated industry. One of the key background papers included an analysis of government use of public views and responses as a means of measuring the relative effectiveness of government enforcement policy and programs. The Dialogue on Indicators of Effective Environmental Enforcement included representatives from NGOs, industry and independent experts. The background papers and proceedings of the Dialogue were distributed widely to the public to provide expanded opportunity for input to the design and delivery of the initiatives. In addition, an experts advisory group (to be appointed in fall of 1999), consisting of NGOs, industry and other individuals with related expertise, will work in tandem with the task group of enforcement officials to advise the CEC in the project. Finally, it is the intent of the CEC to ensure that the focus of the initiative continues to include consideration of the public role in any evaluation processes.

Capacity Building

A component of the project continues to be support to the development and application of more effective indicators. The project is also intended to provide a series of fora to promote the regional sharing of experiences with evolving tools and evaluation processes.

Expected Results

In the next phase of this ongoing project, efforts will shift to the piloting and review of alternative improved indicators. During the follow-up meeting of enforcement officials, a variety of options for next steps were discussed, including:

- interagency review of innovative new indicators and review processes;
- joint evaluation of “best practices” in enforcement evaluation, including alternative indicators or criteria and evaluation processes;
- pilot applications of indicators or methodologies;
- direct ongoing participation of NGOs, industry, academics and other experts in the delivery of this phase; and
- eventual utilization of agreed-upon indicators for the purpose of annual reporting on enforcement.

The CEC will expand the review to explore provincial/state or local experiences, and to involve the public in the development and review of alternative indicators and methodologies.

Expected Partners and/or Participants

The project will be carried out in partnership with the North American Working Group on Environmental Enforcement and Compliance Cooperation. In addition, the project will proceed in close cooperation with North American enforcement agencies, which will share their experiences with the development and piloting of indicators—with the CEC helping to broker this information among the interested parties. Additionally, efforts will be made to cooperate with other institutions and agencies interested and involved in the examination of improved mechanisms to measure and evaluate effective enforcement, including the European Commission, OECD, and the World Bank. As mentioned above, efforts will be made to expand the CEC working group to involve public, related industry, and academia.

Linkages to other CEC Projects

Development of indicators of effective enforcement is in the formative stages—not only in the NAFTA countries but worldwide. This gives the CEC an opportunity to play a proactive role in this new area. The pilot area chosen is that of hazardous wastes and will build on the work previously carried out in the Pollution Control Tracking and Enforcement Capacity area of the Enforcement Cooperation Program related to transborder shipments of hazardous wastes.

Actions 2001

2001	
Action 1: Interagency exchange of information and expertise on indicators of effective enforcement	C\$59,000
Action 2: EWG Task Group agrees on selected indicators for enforcement section of Annual Report	C\$15,000
Total Resources Required	C\$74,000

Actions 2002

2002	
Action 1: Public consultation to evaluate new indicators	C\$59,000
Action 2: EWG Task Group meets to reconsider indicators	C\$15,000
Total Resources Required	C\$74,000

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).

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 of the North American Agreement for Environmental Cooperation. This includes:

- strengthening cooperation on the development and continuing improvement of environmental laws and regulations as called for by Article 10(3);
- facilitating the public's access to information on the environment that is held by public authorities of each Party, as specified under Article 10(5)(a) of NAAEC, by means of the North American Information Management Program (the "CEC Information Center");
- cooperating with the NAFTA Free Trade Commission, as specified by Article 10(6);
- transboundary environmental impact assessment under Article 10(7);
- reciprocal access to courts as set forth in Article 10(9);
- preparing the Program Plan and Budget as called for in Article 11(6);
- preparing the Annual Report as called for by Article 12(1);
- preparing the State of the Environment Report as mandated by Article 12(3);
- developing such reports as the Secretariat deems appropriate under Article 13 of NAAEC;
- processing citizen submissions and the development of factual records pursuant to Articles 14 and 15 of the NAAEC; and
- performing other obligations specified by NAAEC.

North American Fund for Environmental Cooperation

In 2000–2002, the North American Fund for Environmental Cooperation (NAFEC) will continue to:

- support community-based projects;
- emphasize aspects of capacity building and the development of partnerships across borders and sectors;
- focus grant awards on projects that support the CEC's three-year program plan and link the results of those projects to other components of CEC's work program; and
- emphasize public participation within CEC processes and within other processes of regional relevance.

2000 will be a transition year for NAFEC during which CEC will evaluate NAFEC and pursue some new directions to make it more effective. This will involve:

1. Issuing a focused Call for Proposals linked to one or more CEC projects. This would be a pilot effort to see how effectively NAFEC could be used to fund implementation, capacity strengthening and hypothesis-testing related to CEC projects. In addition to receiving funding for their community-based projects, grantees will join a cluster of like projects engaged in exchange and analysis of their work. The outcomes of their efforts will feed directly into broader CEC discussions, representing an innovative form of public participation and ensuring that CEC initiatives reflect the reality on the ground.
2. Carrying out a full evaluation of NAFEC and the projects funded to date focusing on results obtained in relation to CEC's goals; lessons learned with respect to effective community-based approaches; policy implications (what do these experiences on the ground tell us about the type of policies that would support actions benefiting the environment?); and future directions for NAFEC.

3. Broader dissemination of information about NAFEC and NAFEC-supported projects; strengthening the networking and information exchange that is already taking place through NAFEC. Particular initiatives will include expansion of the NAFEC section of the CEC home page; communicating the results of the NAFEC evaluation in a format that meets the needs of various audiences; producing a brochure that provides basic information about NAFEC and highlights some of its accomplishments (for public information purposes and as an initial step in attracting additional funding for NAFEC).
4. Initiating adjustments to NAFEC's structure, based on the outcomes of the evaluation and pilot efforts, and actively exploring stable long-term funding strategies.

	2000	2001	2002
Total Resources Required	C\$739,000	C\$1,477,000	C\$1,477,000

The Joint Public Advisory Committee

The Joint Public Advisory Committee (JPAC) is one of the constituent bodies of the Commission for Environmental Cooperation, along with the Council and the Secretariat. As a group of fifteen volunteer citizens, five from each country, JPAC recognizes its functions in one respect as a microcosm of the public: independent individuals who contribute diverse institutional experience and cultural perspectives. JPAC may provide advice to the Council on any matters within the scope of the North American Agreement on Environmental Cooperation (NAAEC). In another respect, as representative of the North American community-at-large, 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 active public participation and transparency in the actions of the Commission. The members share in a commitment to preserve and enhance the North American environment and to achieve a sustainable society.

JPAC's work plan for 2000–2002 will continue to be oriented around the CEC's program. Plenary discussions with the public will be held during each of JPAC's regular sessions to seek input on the CEC's three-year program plan. JPAC will work closely with the Secretariat to advise the Council on the development of the Program Plan and the specific work program for the three next three-year period.

The Three-year Program Plan is an evolving document. However, JPAC has identified the following areas requiring priority attention in the JPAC work plan for the year 2000: emerging trends and NAFTA environmental effects, strategic directions for the conservation of biodiversity, NAFTA transportation corridors, environmental management systems, and the monitoring and assessment of the revised process for submissions on enforcement matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation (NAAEC).

As a Committee, JPAC must be flexible and capable of absorbing new tasks as they emerge. One of the important purposes of the plenary discussions is to provide JPAC with guidance on priorities as seen by the public. As these priority issues emerge, JPAC will decide how to incorporate them into its annual and, if appropriate, triannual work plan. Another important role of the Committee is, when requested, to provide support to the individual CEC programs. The annual work plans will identify how JPAC will provide this support.

In addition, JPAC must be prepared to initiate new advice to Council and to respond, throughout the year, to direct requests from Council. JPAC also meets regularly with Council and with the Alternate Representatives providing an opportunity to advise Council on the strategic direction of the CEC and on administrative matters. This direct involvement also permits JPAC to be proactive and address public concerns within the CEC.

Actions 2000

2000	
<p>Action 1: Conservation of Biodiversity Issues and JPAC Regular Session</p> <p>Activity 1: As part of the Strategic Directions for the Conservation of Biodiversity project, JPAC will attend the CEC workshop on how to seek and incorporate the perspective of indigenous peoples into the strategic plan</p> <p>Activity 2: As part of its Regular Session, JPAC will organize a plenary discussion with the public to seek input on the CEC's Three-year Program Plan and provide advice to Council on various issues, including Strategic Directions for the Conservation of Biodiversity</p> <p>Activity 3: Prepare memoranda, public notices, advice and report to Council, summary record, and other documents related to Activities 1 and 2 and follow-up (resources required are for professional fees, translation, printing, office supplies, dissemination of documents)</p>	<p>C\$64,000</p> <p>C\$7,000</p> <p>C\$37,000</p> <p>C\$20,000</p>
<p>Action 2: Enforcement Cooperation Issues, Regular Session of Council, JPAC Regular Session and Alternate Representatives meeting</p> <p>Activity 1: As part of the Law and Policy program, JPAC will attend a public meeting on this issue</p> <p>Activity 2: As part of its Regular Session, JPAC will organize a plenary discussion with the public to seek input on the CEC's Three-year Program Plan and provide advice to Council on various issues, including Environmental Management Systems</p> <p>Activity 3: JPAC will attend the Council Session</p> <p>Activity 4: JPAC will attend the Alternate Representatives meeting</p> <p>Activity 5: A JPAC working group member will attend one meeting planned by the Enforcement Cooperation program and report to JPAC</p> <p>Activity 6: Prepare memoranda, public notices, advice and report to Council, summary record, and other documents related to Activities 1–5 and follow-up (resources required are for professional fees, translation, printing, offices supplies, dissemination of documents)</p>	<p>C\$87,000</p> <p>C\$22,000</p> <p>C\$22,000</p> <p>C\$9,000</p> <p>C\$9,000</p> <p>C\$2,000</p> <p>C\$23,000</p>
<p>Action 3: Environment, Economy and Trade Issues, JPAC Regular Session and Alternate Representatives meeting</p> <p>Activity 1: A JPAC working group member will attend one meeting planned by the project on Critical and Emerging Environmental Trends in North America and report to JPAC</p> <p>Activity 2: As part of the project on Critical and Emerging Environmental Trends in North America, JPAC will attend a public meeting involving relevant stakeholders to review approaches and initial findings of the draft reports of the two sub-working groups on emerging trends</p>	<p>C\$52,000</p> <p>C\$2,000</p> <p>C\$8,000</p>

Activity 3: As part of the Assessing Environment and Trade Relationships project, JPAC will attend the North American Symposium on Understanding the Linkages between Trade and Environment	C\$11,000	
Activity 4: As part of its Regular Session, JPAC will organize a plenary discussion with the public to seek input on the CEC's Three-year Program Plan and provide advice to Council on various issues, including the projects on Critical and Emerging Environmental Trends in North America and Assessing Environment and Trade Relationships	C\$8,000	
Activity 5: JPAC will attend the Alternate Representatives meeting	C\$7,000	
Activity 6: Prepare memoranda, public notices, advice and report to Council, summary record, and other documents related to Activities 1–5 and follow-up (professional fee, translation, printing, offices supplies, dissemination of documents)	C\$16,000	
Action 4: Pollutant and Health Issues and JPAC Regular Session		C\$61,000
Activity 1: JPAC will attend a meeting organized as part of the Trinational Air Quality Improvement Initiative: North American Trade and Transportation Corridors	C\$21,000	
Activity 2: As part of its Regular Session, JPAC will organize a plenary discussion with the public to seek input on the CEC's Three-year Program Plan and provide advice to Council on various issues, including work under the Trinational Air Quality Improvement Initiative: North American Trade and Transportation Corridors	C\$24,000	
Activity 3: Prepare memoranda, public notices, advice and report to Council, summary record, and other documents related to Activities 1 and 2 and follow-up (resources required are for professional fees, translation, printing, offices supplies, dissemination of documents)	C\$16,000	
Action 5: JPAC Chair Representation		C\$12,000
Activity 1: Attend Alternate Representatives meetings and other CEC meetings and activities	C\$12,000	
Action 6: Follow-up		C\$3,000
Activity 1: Hold conference calls among JPAC working group members on advice to Council or other tasks, including the assessment of the new Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of NAAEC	C\$2,000	
Activity 2: Present a commemorative plaque to former JPAC members and cover hospitality expenses	C\$1,000	
Total Resources Required		C\$279,000*

Estimated Budget Breakdown for the Year 2000	
Professional fees and travel expenses for the regular sessions and technical support to the JPAC Chair	C\$33,000
Travel, accommodation, interpretation and meeting expenses	C\$183,000
JPAC Chair expenses	C\$12,000
JPAC working groups	C\$9,000
Translation and editing	C\$23,000
Printing	C\$5,000
Parcel services	C\$10,000
Hospitality and commemorative plaques	C\$1,000
Conference calls	C\$2,000
Office supplies	C\$1,000

Actions 2001–2002

Overview

JPAC’s work plan for 2001 will continue to be oriented around the CEC program and specific issues to be determined in response to the public comments of 2000 and 2001. Plenary discussions with the public will be held during each of JPAC regular sessions to seek input on the CEC Three-year Program Plan.

2001	
To be determined	
Total Resources Required	C\$295,000

Overview

JPAC’s work plan for 2002 will continue to be oriented around the CEC program and specific issues to be determined in response to the public comments of 2001 and 2002. Plenary discussions with the public will be held during each of JPAC regular sessions to seek input on the CEC Three-year Program Plan.

2002	
To be determined	
Total Resources Required	C\$295,000

* These budget forecasts exclude the expenses that could be incurred following a decision by the Council to entrust specific future mandates to JPAC. Expenses for public participation related to specific CEC projects are budgeted within those projects.

Budget

The CEC Budget consists of the following categories:

Program

This item includes:

- project costs (including costs of publications);
- salaries of staff whose activity relates directly to projects, Council, JPAC and Executive Management;
- NAFEC—including management costs as well as funds for grants of up to C\$100,000 and funds for projects not exceeding C\$10,000;
- specific obligations under NAAEC;
- a portion of rent (85 percent);
- costs of Council Sessions, JPAC meetings and public meetings;
- telecommunication costs; and
- executive management including costs for the Mexico liaison office.

Administration and support

These items support the Commission as a whole and include Administration and Accounting, Public Outreach, the remaining part of rent (15 percent), external administrative support, relocation expenses for staff, office equipment and supplies, and operating equipment that include the payments for ongoing equipment leases.

Contingency Fund

Set aside for unforeseen costs.

2000 Project Budget Summary

I Environment, Economy and Trade

1. Understanding Linkages between Environment, Economy and Trade

1.1.1. Critical and Emerging Environmental Trends in North America

Cooperative and partnership agreements, professional fees	C\$59,000
Travel, accommodation, interpretation and meeting expenses	C\$75,000
Translation, publication and distribution costs	C\$39,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$173,000

1.1.2 Assessing Environment and Trade Relationships

Cooperative and partnership agreements, professional fees	C\$57,000
Travel, accommodation, interpretation and meeting expenses	C\$85,000
Translation, publication and distribution costs	C\$18,000
Other expenses	C\$3,000
Equipment purchase (if applicable)	C\$0
Total	C\$163,000

1.1.3 Financing and the Environment

Cooperative and partnership agreements, professional fees	C\$52,000
Travel, accommodation, interpretation and meetings expenses	C\$53,000
Translation, publication and distribution costs	C\$25,000
Other expenses	C\$4,000
Equipment purchase (if applicable)	C\$0
Total	C\$134,000

2. Green Goods and Services

1.2.1 Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade	
Cooperative and partnership agreements, professional fees	C\$77,000
Travel, accommodation, interpretation and meetings expenses	C\$44,000
Translation, publication and distribution costs	C\$52,000
Other expenses	C\$19,000
Equipment purchase (if applicable)	C\$0
Total	C\$192,000

1.2.2 Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species	
Cooperative and partnership agreements, professional fees	C\$77,000
Travel, accommodation, interpretation and meetings expenses	C\$27,000
Translation, publication and distribution costs	C\$7,000
Other expenses	C\$3,000
Equipment purchase (if applicable)	C\$0
Total	C\$114,000

1.2.3 Sustainable Tourism in Natural Areas	
Cooperative and partnership agreements, professional fees	C\$49,000
Travel, accommodation, interpretation and meetings expenses	C\$30,000
Translation, publication and distribution costs	C\$7,000
Other expenses	C\$6,000
Equipment purchase (if applicable)	C\$0
Total	C\$92,000

II | Conservation of Biodiversity

1. North American Biodiversity Conservation Strategies

2.1.1 Strategic Directions for the Conservation of Biodiversity	
Cooperative and partnership agreements, professional fees	C\$35,000
Travel, accommodation, interpretation and meetings expenses	C\$70,000
Translation, publication and distribution costs	C\$36,000
Other expenses	C\$7,000
Equipment purchase (if applicable)	C\$0
Total	C\$148,000

2.1.2 Ecosystem Monitoring Initiative	
Cooperative and partnership agreements, professional fees	C\$0
Travel, accommodation, interpretation and meetings expenses	C\$0
Translation, publication and distribution costs	C\$0
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$0

2. Stewardship for Shared Terrestrial and Marine Ecosystems and Transboundary Species

2.2.1 Cooperation on the Protection of Marine and Coastal Ecosystems	
Cooperative and partnership agreements, professional fees	C\$125,00
Travel, accommodation, interpretation and meetings expenses	C\$95,000
Translation, publication and distribution costs	C\$29,000
Other expenses	C\$7,000
Equipment purchase (if applicable)	C\$0
Total	C\$256,000

2.2.2 Mapping Marine and Estuarine Ecosystems of North America	
Project to commence in 2001	

2.2.3 North American Marine Protected Areas Network	
Cooperative and partnership agreements, professional fees	C\$66,000
Travel, accommodation, interpretation and meetings expenses	C\$30,000
Translation, publication and distribution costs	C\$49,000
Other expenses	C\$3,000
Equipment purchase (if applicable)	C\$0
Total	C\$148,000

2.2.4 North American Biodiversity Conservation Mechanisms	
Cooperative and partnership agreements, professional fees	C\$227,000
Travel, accommodation, interpretation and meetings expenses	C\$97,000
Translation, publication and distribution costs	C\$73,000
Other expenses	C\$8,000
Equipment purchase (if applicable)	C\$0
Total	C\$405,000

3. Improving Information on North American Biodiversity

2.3.1 North American Biodiversity Information Network	
Cooperative and partnership agreements, professional fees	C\$118,000
Travel, accommodation, interpretation and meetings expenses	C\$44,000
Translation, publication and distribution costs	C\$15,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$177,000

III | Pollutants and Health

1. Cooperation on North American Air Quality Issues

3.1.1 Facilitating Trilateral Coordination in Air Quality Management	
Cooperative and partnership agreements, professional fees	C\$71,000
Travel, accommodation, interpretation and meetings expenses	C\$185,000
Translation, publication and distribution costs	C\$117,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$373,000

3.1.2 Developing Technical and Strategic Tools for Improved Air Quality in North America	
Cooperative and partnership agreements, professional fees	C\$0
Travel, accommodation, interpretation and meetings expenses	C\$0
Translation, publication and distribution costs	C\$33,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$33,000

3.1.3 Trilateral Air Quality Improvement Initiative: North American Trade and Transportation Corridors	
Cooperative and partnership agreements, professional fees	C\$90,000
Travel, accommodation, interpretation and meetings expenses	C\$118,000
Translation, publication and distribution costs	C\$15,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$223,000

2. Sound Management of Chemicals Program

3.2.1 Sound Management of Chemicals	
Cooperative and partnership agreements, professional fees	C\$440,000
Travel, accommodation, interpretation and meetings expenses	C\$225,000
Conference Calls	C\$31,000
Translation, publication and distribution costs	C\$87,000
Other expenses	C\$52,000
Equipment purchase (if applicable)	C\$0
Total	C\$835,000

3. North American Pollutant Release and Transfer Register Program

3.3.1 North American Pollutant Release and Transfer Register	
Cooperative and partnership agreements, professional fees	C\$333,000
Travel, accommodation, interpretation and meetings expenses	C\$49,000
Translation, publication and distribution costs	C\$25,000
Other expenses	C\$10,000
Equipment purchase (if applicable)	C\$0
Total	C\$417,000

4. Pollution Prevention

3.4.1 Capacity Building for Pollution Prevention	
Cooperative and partnership agreements, professional fees	C\$111,000
Travel, accommodation, interpretation and meetings expenses	C\$34,000
Translation, publication and distribution costs	C\$8,000
Other expenses	C\$1,000
Equipment purchase (if applicable)	C\$0
Total	C\$154,000

5. First North American Symposium on Children's Health and the Environment

3.4.2 Children's Health and the Environment in North America	
Cooperative and partnership agreements, professional fees	C\$85,000
Travel, accommodation, interpretation and meetings expenses	C\$50,000
Translation, publication and distribution costs	C\$7,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Total	C\$142,000

IV | Law and Policy

1. Environmental Standards and Performance

4.1.1 Cooperation between Environmental Laboratories	
Cooperative and partnership agreements, professional fees	C\$30,000
Travel, accommodation, interpretation and meetings expenses	C\$17,000
Translation, publication and distribution costs	C\$4,000
Other expenses	C\$1,000
Equipment purchase (if applicable)	C\$0
Total	C\$52,000

2. Enforcement Cooperation Program

4.2.1 North American Regional Enforcement Forum	
Regional Forum	
Cooperative and partnership agreements, professional fees	C\$3,000
Travel, accommodation, interpretation and meetings expenses	C\$44,000
Translation, publication and distribution costs	C\$4,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$0
Subtotal	C\$51,000
Annual Report and Special 2000 Enforcement Report	
Cooperative and partnership agreements, professional fees	C\$0
Travel, accommodation, interpretation and meetings expenses	C\$7,000
Translation, publication and distribution costs	C\$49,000
Other expenses	C\$3,000
Equipment purchase (if applicable)	C\$0
Subtotal	C\$59,000
Outreach	
Cooperative and partnership agreements, professional fees	C\$4,000
Travel, accommodation, interpretation and meetings expenses	C\$11,000
Translation, publication and distribution costs	C\$5,000
Other expenses	C\$2,000
Equipment purchase (if applicable)	C\$0
Subtotal	C\$22,000
Total	C\$132,000

4.2.2 Enforcement and Compliance Capacity building	
Wildlife Enforcement Capacity Building	
Trophy Hunting Seminar	
Cooperative and partnership agreements, professional fees	C\$15,000
Travel, accommodation, interpretation and meetings expenses	C\$59,000
Translation, publication and distribution costs	C\$12,000
Other expenses	C\$3,000
Equipment purchase (if applicable)	C\$0
Subtotal	C\$89,000
Network/Partnership Initiative and training	
Cooperative and partnership agreements, professional fees	C\$7,000
Travel, accommodation, interpretation and meetings expenses	C\$11,000
Translation, publication and distribution costs	C\$18,000
Other expenses	C\$1,000
Equipment purchase (if applicable)	C\$0
Subtotal	C\$37,000
Pollution Enforcement Capacity Building	
EMS and Compliance Initiative	
Cooperative and partnership agreements, professional fees	C\$6,000
Travel, accommodation, interpretation and meetings expenses	C\$46,000
Translation, publication and distribution costs	C\$6,000
Other expenses	C\$1,000
Equipment purchase (if applicable)	C\$0
Subtotal	C\$59,000
Sound Management of Chemicals	
Professional fees and cooperative agreements	C\$0
Travel, communication	C\$7,000
Translation and interpretation, including pre-publication costs	C\$0
Office expenses (courier, etc.)	C\$0
Equipment purchases	C\$0
Subtotal	C\$7,000
Total	C\$192,000

4.2.3 Indicators of Effective Environmental Enforcement	
Cooperative and partnership agreements, professional fees	C\$15,000
Travel, accommodation, interpretation and meetings expenses	C\$50,000
Translation, publication and distribution costs	C\$7,000
Other expenses	C\$0
Equipment purchase (if applicable)	C\$1,000
Total	C\$73,000

2000 Overall Budget Summary*

General	2000	2001	2002
	Amount (C\$)		
1. Program	11,122,000	12,432,000	12,491,000
1.1 Projects	4,629,000	4,611,000	4,611,000
1.2 Salaries	3,068,000	3,375,000	3,375,000
1.3 NAFEC	739,000	1,477,000	1,477,000
1.4 Specific obligations	1,120,000	1,329,000	1,329,000
1.5 Rent (Program)	532,000	591,000	650,000
1.6 Council Regular Session (incl. 66K public session)	295,000	295,000	295,000
1.7 JPAC operations	281,000	295,000	295,000
1.8 Telecommunications	148,000	148,000	148,000
1.9 Executive Management	310,000	310,000	310,000
1.9.1 Executive Director	118,000	118,000	118,000
1.9.2 Directors	59,000	59,000	59,000
1.9.3 Mexico Liaison Office	133,000	133,000	133,000
2. Administration and support	2,068,000	2,173,000	2,165,000
2.1 Salaries	871,000	871,000	871,000
2.2 Public Outreach	459,000	467,000	511,000
2.3 Operating equipment	118,000	192,000	133,000
2.4 External administrative support	295,000	295,000	295,000
2.5 Office supplies	133,000	148,000	148,000
2.6 Rent	74,000	81,000	89,000
2.7 Relocation and orientation	118,000	118,000	118,000
3. Contingency fund	590,000	665,000	591,000
3.1 Unforeseen needs	148,000	222,000	222,000
3.2 Reserve for reimbursement of Quebec taxes	89,000	74,000	
3.3 Reserve for currency fluctuations	353,000	369,000	369,000
Total Expenses	13,780,000	15,269,000	15,247,000

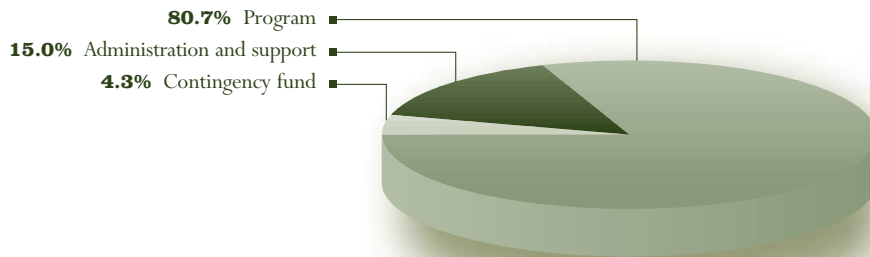
Summary	2000	2001	2002
	Amount (C\$)		
Description			
1 – Program	11,122,000	12,432,000	12,491,000
2 – Administration	2,068,000	2,173,000	2,165,000
3 – Contingency	590,000	665,000	591,000
Total	13,780,000	15,269,000	15,247,000

Revenues	2000	2001	2002
	Amount (C\$)		
Income			
Parties' contributions	13,293,000	13,293,000	13,293,000
Carry over	369,000	0	0
Interest	118,000	74,000	59,000
Total Income	13,780,000	13,367,000	13,352,000

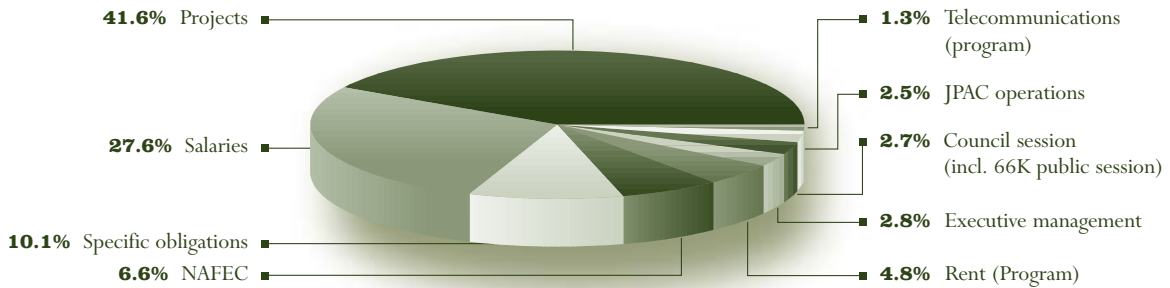
* Includes estimated budgets for 2001 and 2002.

2000 Budget – Graphic Overview

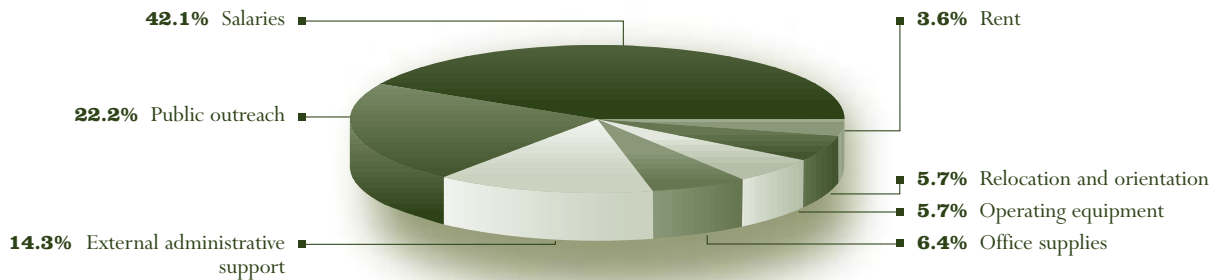
General



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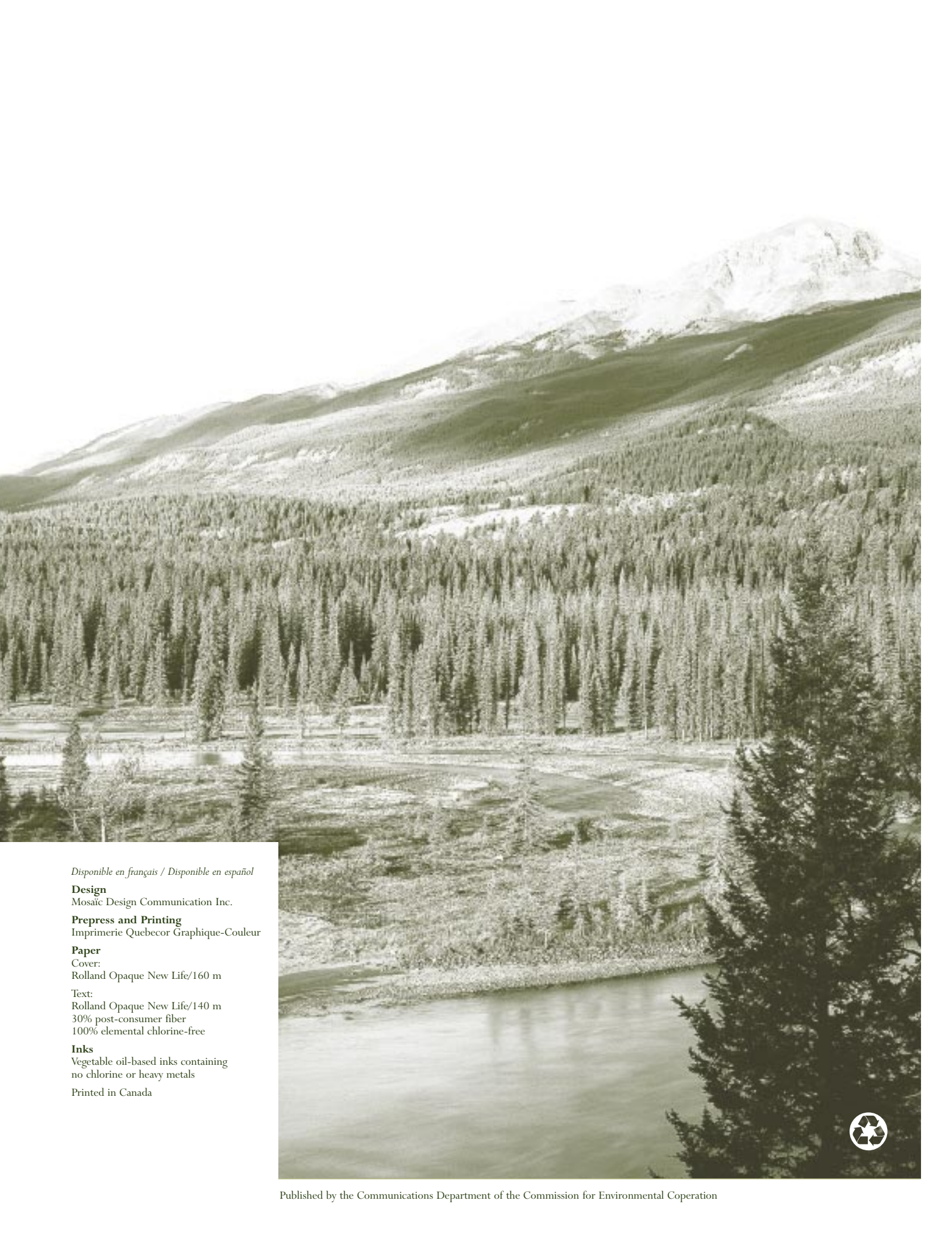
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In North America, we share a rich environmental heritage that includes air, oceans and rivers, mountains and forests. Together, these elements form the basis of a complex network of ecosystems that sustains our livelihoods and well-being. If these 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) 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 the CEC 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.

To find out more about the CEC's activities, or to get up-to-date information on the projects described in this document, including related announcements and publications, please visit the CEC's Internet home page or contact us using the addresses below:

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