



2002–2004
Proposed Program Plan and Budget
for the
Commission for Environmental Cooperation
of North America

September 2001

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PREFACE

In 1994, the coming into force of the North American Free Trade Agreement (NAFTA) 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 North American 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 2002–2004 program plan sets forth the work plan for this triennium, continuing in its implementation of NAAEC. It reflects the Council's vision for deepening cooperation, by pursuing the twin goals of furthering environmental sustainability in open markets and stewardship of the North American environment.

The 2002–2004 program plan is centered around four core program areas: Environment, Economy and Trade; Conservation of Biodiversity; Pollutants and Health; and Law and Policy. Within these areas, a number of programs are set out to further the goals and objectives of NAAEC. Specific projects are presented as a means to implement the goals of the programs. The programs will continue to evolve over a three-year cycle in response to the results achieved each year.

INTRODUCTION

The 2002–2004 CEC program plan gives direction and constancy to existing work while retaining the flexibility to respond to new challenges and opportunities.

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

The 2002–2004 program plan also takes up many of the recommendations made by other advisory bodies, including the national and government advisory committees. Additionally, the plan incorporates numerous suggestions made by members of the private and public sector currently engaged in 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, Developing Technical and Strategic Tools for Improved Air Quality in North America, and evolving work on energy and climate change.

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 our role and employing our 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 .

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. The organization's reports, factual records, and databases empower citizens and governments by providing important regional information on our shared environment and the policies employed to protect it.

The Program

Work of the CEC is focused around four program areas:

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

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.

Following scoping, project implementation may involve a variety of actions or strategies. Often, pilot phases are used to test or deploy a model or strategy in a particular locale or region. The results of such pilots may provide models for others to replicate and permit designers to refine and improve strategies before expending greater resources and energy on larger-scale efforts. Projects may also employ teams of experts, working groups, multi-stakeholder committees or others to meet the objectives of the program area.

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. NAAEC embodies the commitment and belief that environmental protection and conservation efforts are enhanced and multiplied through strong mechanisms for public participation. To the greatest extent possible, the CEC incorporates effective and timely means of participating in its activities directly into specific programs and projects.

Similarly, the Parties recognize that lasting environmental protection and conservation strategies can only be sustained by building national capacities to design, implement and maintain the policies and measures that are adopted in the region. Accordingly, the CEC also builds capacity-building mechanisms, such as training, scientific and technical exchange and education, directly into the three-year program plan. As well, the North American Fund

for Environmental Cooperation (NAFEC) constitutes an important mechanism for increasing the involvement of community groups in the work of the CEC and for enhancing their capacity to address environmental concerns.

Results

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

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

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

2002-2004 PROGRAM AT A GLANCE

I – ENVIRONMENT, ECONOMY AND TRADE

- 1.1.1 – Assessing the North American Environment in the context of North American market integration
- 1.2.1 – Identifying Market-Mechanisms in Support of Environmental Protection and Conservation
- 1.2.2 – Financing and the Environment: Climate Change and Energy

II – CONSERVATION OF BIODIVERSITY

- 2.1.1 – Strategic and Cooperative Action for the Conservation of Biodiversity in North America
- 2.1.2 – North American Bird Conservation Initiative
- 2.1.3 – Species of Common Conservation Concern
- 2.1.4 – Mapping Marine and Estuarine Ecosystems of North America
- 2.1.5 – North American Marine Protected Areas Network
- 2.1.6 – North American Biodiversity Information Network

III - POLLUTANTS AND HEALTH

- 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
- 3.2.1 – Sound Management of Chemicals (SMOC)
- 3.3.1 – North American Pollutant Release and Transfer Register (PRTR) Project
- 3.4.1 – Capacity Building for Pollution Prevention
- 3.4.2 – Children’s Health and the Environment in North America

IV – LAW AND POLICY

- 4.1.1 – Comparative Report on Environmental Standards
- 4.2.1 – North American Regional Enforcement Issues
- 4.2.2 – Enforcement and Compliance Capacity Building
- 4.2.3 – Enforcement/Compliance Reporting
- 4.2.4 – Closing the Pathways of Aquatic Invasive Species across North America
- 4.2.5 – Sustainable Use and Conservation of Freshwater in North America

OTHER INITIATIVES OF NACEC

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

ENVIRONMENT, ECONOMY AND TRADE

The objective of the Environment, Economy and Trade Program is to ensure that high levels of environmental quality are maintained as North American market integration proceeds. This overarching goal provides cohesion for the three work clusters that comprise the Environment, Economy and Trade program area.

- Assessing the North American Environment in the Context of North American Market Integration;
- Identifying Market Mechanisms in Support of Environmentally Protection and Conservation; and
- Financing and the Environment: Climate Change and Energy.

1.1.1 Assessing the North American Environment in the Context of North American Market Integration

Project Summary

The goal of this project is to improve environmental assessments of market integration of the North American economy, with emphasis on the environmental effects of trade liberalization. The CEC remains unique among international organizations in its mandate to undertake such assessments, expressed for example in Article 10(6)(d) of NAAEC, to undertake an “ongoing assessment” of the environmental effects of NAFTA. Among the lessons of the CEC’s work to date is that analysis of the environmental effects of the NAFTA need to be complemented with consideration of related international economy-wide and sector specific policies. To improve environmental assessments, the strategy of the 2002 program will combine backwards-looking (or *ex post*) environmental assessments (undertaken under the former NAFTA Effects project) with forward-looking (or *ex ante*) assessment (prepared under the former Emerging Trends project). In combining past- and forward-looking environmental assessments, the core objective of the CEC’s work is to clarify policy options for both environmental and economy policy-makers. Such policy options should be designed to mitigate environmental damages associated with trade expansion and economy-wide reforms, as well as to maximize potential environmental benefits arising from market integration. This can better be done by incorporating the environmental decisions in the economic and trade policy decisions and economic and trade considerations in environmental decision making, eventually leading to integrated policy making that maximizes economic, environmental and social benefits—the pillars of sustainable development.

The project will follow several directions:

- (a) Facilitate the comparison of methods and lessons learned from recent and ongoing environmental reviews or strategic environmental assessments of trade policy and associated economic policy reforms. This forum includes a means by which the NAAEC Parties can compare different approaches and results, as well as benefit from the range of experience undertaken by civil society in environmental reviews. One result of facilitating a comparison of methods and results is to improve understanding of shared environmental effects at the North American level.
- (b) In light of considerable work underway in the area of environmental reviews by the Parties, research bodies, international organizations and others, update the *Analytic Framework for Assessing the Environmental Effects of the North American Free Trade Agreement (NAFTA)*.
- (c) Integrate backwards-looking (*ex post*) assessments with forward-looking (*ex ante*) environmental assessments. Analysis will continue to concentrate on the sector-specific level. Sector-specific analysis will build upon insights from the First North American Symposium on Understanding the Linkages between Trade and Environment (October 2000), as well as the follow-up analysis undertaken in 2001, concentrating on two broad areas: agriculture—including the effects of market integration on biodiversity, forestry, and freshwater resources—and the North American energy sector. In examining these two areas, the project will build upon work prepared under the former Emerging Trends project, in particular its work in agriculture, forestry and freshwater. The goal of integrating backwards and forwards-looking analysis is to present pro-active policy options, based on established environmental and economic trends and potential outcomes to 2010.
- (d) Following the release in early 2002 of an updated Analytic Framework, issue a public Call for Papers, and host the second North American Symposium on Assessing the Linkages between Trade and Environment in November 2002.
- (e) Lessons from the symposium will provide part of the basis for the preparatory work for a first NAFTA trade and environment ministerial meeting. The meeting, which will involve environment and trade ministers from Canada, Mexico and the United States, will be held in 2003.

Goals and Objectives

As the integration of the North American economy accelerates, environmental policies face new challenges. This project will help to clarify the extent to which market integration—driven by trade and trade-related investment among the NAFTA partners—directly or indirectly affects environmental quality, and environmental policies. Robust environmental assessments provide a sound basis for identifying new policies—both in the environmental and economic policy arenas—intended to mitigate negative environmental effects of market integration, and maximize positive environmental outcomes.

Rationale

The objective of the project is to improve policy-relevant environmental assessments of market integration and trade. In 2000, total trade among the three NAFTA partners amounted to roughly US\$700 billion. In addition to total trade, cross-border investment flows have increased significantly since 1994. As trade and investments flows have increased, so too has the exchange of technologies, management practices and regulatory experience among Canada, Mexico and the United States.

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

A guiding assumption of the project is that rigorous environmental assessments provide a strong foundation upon which policy responses can be built. Accordingly, an important emphasis of the project is providing policy-relevant environmental assessments. The project combines the CEC's work from two formerly distinct project areas: NAFTA Effects—which involves a backcasting or *ex post* approach to identify the impacts of trade on environmental quality and policy—and Emerging Trends, which comprises a forecasting or *ex ante* tool intended to highlight key environmental challenges to the years 2010 to 2020.

Progress to Date

In the summer of 1995, the CEC initiated the exploratory phase (Phase I) of the NAFTA Effect 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 trade, investment and economic activity.

In Phase II, specific issue studies were undertaken, addressing key elements of the general framework in order to enrich areas where empirical data were 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. The Council 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 JPAC public meeting. The public's comments were incorporated into the Analytic Framework at the end of 1999.

In late 1999, the Council issued a public Call for Papers, inviting the public to submit proposals that would apply the methods of the Analytic Framework. In March 2000, a newly formed advisory committee to the symposium provided advice to the Secretariat in the selection of papers from the Call for Papers. Authors or groups of organizations were invited to prepare papers for the October CEC symposium, featuring broad participation from experts and the public from Canada, Mexico and the United States.

In October 2000, over 300 people participated in the first North American Symposium on Assessing the Linkages between Trade and Environment. Results from the original research papers were discussed, revised and published in 2001 in two formats: as a stand-alone, “lessons learned” report, highlighting key results of the research papers and discussions; and a full proceedings of the symposium itself.

In later 2001, the CEC Secretariat released three additional background reports as a follow-up to the symposium: (a) an analysis of the effects of market integration and trade liberalization on biodiversity, with an emphasis on agriculture; (b) implications of the evolving North American energy market for energy efficiency and renewable energy development and trade; and (c) an update of lessons learned in assessing the environmental effects of trade liberalization.

In examining biodiversity and issues related to agriculture, the 2001 analysis also builds upon work undertaken in the context of the Emerging Trends project. This work includes:

- Four background reports prepared by the Secretariat, identifying different economic drivers of environmental change, as well as methods to anticipate future environmental challenges.
- The release of an abbreviated State of the Environment report, serving as a baseline for the emerging trends work.
- An online questionnaire, inviting the public to provide their input to critical and emerging environmental issues.
- Analysis of the relationship and increasing competition between agriculture and urban sprawl in relation to the use of freshwater resources. The analysis used a hybrid IMPACT model to estimate natural resource competition and possible constraints involving the agricultural sector and urban expansion to the year 2025. Results of the model were released in December 2000.
- The first application of materials-flow analysis to examine the forestry and agricultural sectors from Canada, Mexico and the United States. Results were also released in December 2000, based on in-house support from the Parties and in close conjunction with the World Resources Institute.
- The release of a highlights and lessons learned report of key issues related to the trends analysis, in June 2001.
- The release of a document summarizing, in a language accessible to all, all the documents produced so far by the group, in later 2001.

Actions 2002

Overview

The aim of the 2002–2004 work plan is to advance the understanding of linkages between environment, economy, and trade, with the goal of formulating policy options designed to mitigate potential negative environmental effects and maximize positive environmental outcomes. To achieve that aim, work will include reviewing methods and tools needed to assess environment-economy linkages, with reference to the CEC Analytic Framework. Work will also deepen analysis at the sector-specific level and show links between different economic sectors and sub-sectors, including building upon analysis undertaken in 2001 in biodiversity and the energy sector. A main focus of work for 2002 will entail preparing for and holding the second North American Symposium on Assessing the Linkages between Trade and Environment. Steps will include a Call for Papers from Council, peer review of proposals by an Advisory Group on the Environment and Economy, holding of the symposium itself in November 2002, and producing the results and policy recommendations as a contribution to the first meeting of NAFTA trade and environment ministers, to be held in 2003.

2002	Estimated Resources Required (C\$)
Action 1: Update, as necessary, the Analytic Framework, based on the reviews and round table meeting	40,000

Proposed Program Plan and Budget: 2002–2004
Environment, Economy and Trade

<ul style="list-style-type: none"> Activity 1: Review approaches and findings from recent work in backwards- and forwards-based environmental assessment work of economic/trade policies. In particular, provide recommendations on comparability of approaches, tools, data requirements, methods and models between <i>ex post</i> environmental assessments and environmental futures work. Prepare expert report on technical options 	10,000
<ul style="list-style-type: none"> Activity 2: Host a meeting of governments, international organizations, NGOs, and the private sector, including the Advisory Group, to compare approaches and results. Particular emphasis of the meeting is to identify shared environmental challenges among the countries due to market integration 	20,000
<ul style="list-style-type: none"> Activity 3: Compare approaches and lessons learned from environmental reviews and assessments of trade 	10,000
Action 2: Integrate backward- and forward-based environmental assessments	175,000
<ul style="list-style-type: none"> Activity 1: Examine methods, tools and baselines needs to combine backward- and forward-based environmental assessments 	20,000
<ul style="list-style-type: none"> Activity 2: Continue analysis at the sector-specific level in two areas: agriculture and energy. In the area of agriculture, analysis will concentrate on the extent to which trade and market integration is affecting, and will likely affect to 2010, forests, freshwater and biodiversity. In the area of energy, analysis will examine the extent to which the evolving North American energy market can support energy efficiency and renewable energy options 	120,000
<ul style="list-style-type: none"> Activity 3: Based on sectoral analysis, prepare a public workshop to identify and examine policy options for environmental and economic policy-makers 	35,000
Action 3: Organize the second North American Symposium on Assessing the Links between Trade and Environment	150,000
<ul style="list-style-type: none"> Activity 1: In January 2002, issue a public Call for Papers in support of the second symposium. In April 2002, with the assistance of the Advisory Board, make selections of researchers and groups to prepare conference papers 	10,000
<ul style="list-style-type: none"> Activity 2: Provide limited grant and research support to individuals, research groups and others in preparation of symposium papers 	75,000
<ul style="list-style-type: none"> Activity 3: Host second North American Symposium on Assessing Links between Trade and Environment 	65,000
Total Resources Required	365,000
Total US\$	235,000

Public Participation

A core goal of the CEC's work on assessing the environmental effects of economic policies is to ensure that its analysis is transparent and fully engages civil society in its work. Indeed, among the most important lessons of efforts to examine the environmental impacts of trade is the central role that civil society plays in improving such assessments. Examples of efforts to include civil society include the public Call for Papers; participation of over 300

people in the October 2000 symposium; the creation in 2001 of an Advisory Group—composed of experts and NGOs—supporting a survey of public views on emerging environmental trends, and providing input to a public meeting in late 2001 on trends. This commitment to public participation will continue in 2002 with the public Call for Papers in early 2002 and the hosting of a second North American symposium in late 2002.

Capacity Building

In addition to identifying environmental impacts of trade liberalization at the symposium, the second symposium will link different groups and individuals from the three countries in the preparation of substantive and original analysis on environmental assessment work. The follow-up work on further analysis and public participation is intended to continue and deepen capacity building, allowing organizations and individuals to continue assessing the environmental effects of trade, both in NAFTA and other contexts.

Expected Results

The project is intended to improve environmental assessments of economic policies and market integration. In so doing, it is expected to integrate different methods and approaches to environmental reviews and assessments, including backward and forward-looking environmental analysis. The results of the second symposium will provide an important preparatory point of reference for the 2003 NAFTA ministerial meeting on trade and the environment. The project will also improve the capacity of governments, research groups, NGOs and others in preparing for future assessments of new trade and other economy-wide reforms, including for example environmental effects of market liberalization in the energy, agriculture and other sectors.

Expected Partners and/or Participants

The CEC will actively seek partners to continue the work of understanding the environmental effects of economic policies, including the World Resources Institute, the OECD, the World Trade Organization, the UN Commission for Sustainable Development, the UN Convention on Biodiversity, the World Bank, research centers, NGOs and others.

Actions 2003–2004

2003
Action: The CEC will continue to assess the environmental impacts of trade liberalization, seeking to identify policies that maximize benefits and mitigate, or avoid, adverse effects.

Linkages to other CEC Projects

Given the interdisciplinary nature of this project, activities will be closely coordinated with a number of other CEC projects and activities and will draw upon environmental data made available through them. These will include NABIN and others in the Conservation of Biodiversity program area, the North American Pollutant Release and Transfer Register project, the project on Developing Technical and Strategic Tools for Improved Air Quality in North America, and others.

1.2.1 Identifying Market Mechanisms in Support of Environmental Protection and Conservation

Project Summary

The objective of the project is three-fold: to strengthen the viability and market share of green goods and services in North America; to facilitate the participation of small and medium-size enterprises in those markets; and to identify concrete ways in which market-based instruments can be applied more fully to green goods. The project builds upon the CEC's work on environmental goods and services and market-based instruments that has been underway since 1998. Among the key lessons of work in this area is the importance of linking general policies and lessons regarding green goods with analysis, capacity building and the facilitation of partnerships among different market actors at the concrete, micro-economic and sectoral and sub-sectoral levels.

The project will examine specific barriers and opportunities to green goods and services contained within specific market groups and sizes of actors. The products and services to be examined in the 2002 project are: "shade-grown" agricultural produce (including shade-grown coffee, Chamaedorea palms, honey, medicinal plants and other farm produce), and energy goods and services. In the energy area, the project will concentrate on market-based approaches that support demand-side energy efficiency in practices and products, as well as policies intended to increase renewable energy in total energy portfolios.

In these areas, the project will also examine the role of freshwater as a production input and output. The project will identify specific market-based measures and provide specific examples of how different market instruments—including fiscal, regulatory and voluntary measures—can support sustainable freshwater management goals.

In its examination of green goods and services, the following stages within green markets will be addressed, with the goal of identifying market, pricing and information failures, as well as facilitating partnerships between different market actors of different size: (a) understanding the environmental characteristics of so-called green products and services; (b) deepening analysis of consumer interest in, and willingness to pay, for "green" products and services; (c) identifying challenges to producers in meeting green product and service criteria; (d) supporting community partnerships, in particular, in product areas (such as shade agriculture) that depend on small-scale production; (e) identifying the important role of intermediaries in brokering green goods and services; (f) supporting transparency and comparability of information and marketing tools, including environmental labeling and certification schemes; and (g) identifying options for public policy in supporting green markets. In addition to these steps identified in the work of the CEC thus far in green goods and services, an important additional aspect is access to financing mechanisms.

Besides examining specific goods and services linked to agricultural and energy sectors, the project will also examine different aspects of market mechanisms for various scale of production, such as unilateral and negotiated business-environmental management approaches. Drawing upon analytic work of the OECD and others, the project will also examine the use of valuation, full cost accounting, bio-economics, and other tools in support of sustainable freshwater and shade agriculture management goals.

Goals and Objectives

The main focus of the CEC's work on market-based instruments is to improve understanding of the market characteristics and the potential for an expanded production, consumption and North American trade in green goods and services. This project examines both improved production capacities and broader consumer interest in green goods and services that foster decoupling of production and environmental damages. A key goal of the project is to broker the exchange of information among different actors within markets. Experience suggests that although the potential for green markets in North America is considerable, various impediments persist to constrain that potential, and this is especially true for smaller firms. These constraints include information failures (including access to information and transparency issues); low levels of consumer awareness and education regarding the environmental implications of purchasing habits, pricing and other market distortions arising from certain public policies; and other market constraints.

Among the specific objectives of this project are:

- furthering analysis of different environmental implications of so-called green goods and services, including analysis of the effects of increased production or consumption of such products and/or services;
- raising awareness among producers and intermediaries regarding the market potential of green goods and services;
- improving the transparency and comparability of marketing information tools, in particular, environmental labeling and certification schemes of relevance to the food and energy sector;
- examining issues relating to local water pricing and watershed management, and promote accessible, affordable technologies for improving water management;
- clarifying public policy options at the North American-level related to market-based instruments. Such options will build upon the OECD Sustainable Development report, providing examples of market-based instruments already in place in North America, as well as opportunities for the expanded role of such instruments;
- improving analysis and policy options regarding the role of public sector initiatives in support of market-based approaches and green markets. Such options can include the creation or expansion of incentives—including fiscal or legal-based measures—the removal of disincentives or distortions (for example subsidies), and the identification of other measures that governments can implement in support of green markets (for example, green procurement policies).
- helping to identify the appropriate role of the public and private sectors, and NGOs, in developing markets for green goods and services.

Rationale

Market-based approaches have long been recognized as an important tool to support environmental objectives. However, the gap between the potential and actual realization of instruments that support green markets, and market instruments that reduce negative environmental impacts, remains substantial. Addressing the broad objectives listed above will guide the CEC's work on market-based instruments.

Progress to Date

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

The project will build upon several CEC initiatives, including its work on shade-grown coffee, the *Chamaedorea* palm, and sustainable tourism. In understanding the environmental dimensions of these products, the project will build upon lessons learned from work with: the Smithsonian Migratory Bird Center and their work on defining criteria for producers of "shade-grown coffee" (2000); the International Center for Research in Agroforestry (ICRAF), in assessing the environmental effects of shade-grown coffee, and shade agriculture generally, on flora, birds, mammals, reptiles and biodiversity (2001); Mexico's National Institute for Geography, in clarifying the link between areas of rich biodiversity and small-scale farm production (2001); and Resources for the Future (RFF), in understanding rates of forest conversion in Mexico due to coffee production (2001).

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

A main focus of the project will continue to be the challenges facing small-scale producers, communities and intermediaries in supporting green markets. Experience suggests that a major cause of market failures in green markets is the separation of different market actors. Increasingly the role of NGOs in filling this gap is being recognized. For instance, the CEC has convened a number of meetings, workshops and seminars with small-scale producers, including coffee farmers and cooperatives (Oaxaca, March 2000, and San Cristóbal, 2001); with

sustainable tourism operators and other stakeholders to develop market-based approaches to sustainable tourism (La Paz, March 2001); and with electricity producers and consumers (November 2001). This work complements the CEC's work on community partnerships in support of green goods, including with various small-scale farmers and cooperatives (2001), as well as building upon the valuable lessons and networks that have arisen from NAFEC project work. The CEC has also convened several meetings with producers and brokers of coffee and other products, to provide information on market opportunities for shade-grown farm produce and other goods. These include meetings with coffee buyers and brokers (New York, Miami and Montreal, 2001), as well as with cooperatives, examining the possible creation and market profile of a Mexican Council for Sustainable Coffee.

Another major focus of the CEC's work has been to improve the transparency and comparability of market and consumer information related to green goods and services. Examples of the CEC's work thus far in this area include the overview report on environmental labeling, certification and procurement schemes in place in North America (1999), the release of an updated version of four searchable databases for green goods and services covering: (a) coffee labeling and certification schemes; (b) sustainable or eco-tourism certification schemes, codes of good practice, voluntary guidelines and other initiatives; (c) office products, with an emphasis on energy efficiency-related products; and (d) "green" electricity, studying third-party certification schemes for "green" electricity and their criteria, environmental marketing guidelines for electricity, renewable electricity definitions and renewable portfolio standards (RPS) from electricity restructuring legislation, along with other information available at: http://www.cec.org/pubs_info_resources/databases/index.cfm?varlan=english.

Actions 2002

Overview

In 2002, the Environment, Economy and Trade program area will continue to build its expertise on green goods and services and search for innovative ways to promote sustainable production, consumption, wildlife conservation, and trade of these goods and services. Based on already acquired expertise on the various goods and services, cross-cutting issues will be identified and generalized to other products. In addition, the project will build upon lessons learned in examining green markets, to identify options for policy in supporting private markets for green goods and services, including pricing, incentive and procurement options.

2002	Estimated Resources Required (C\$)
Action 1: Examine and support partnerships for green goods and services in North America in the shade agriculture produce and energy sectors	120,000
<ul style="list-style-type: none"> • Activity 1: Facilitate capacity building and meetings between different market actors within the shade agriculture and energy sectors—for example producers, intermediaries, brokers, certification bodies and retailers/consumer groups—to identify constraints and opportunities to expanding environmentally sustainable North American markets for shade agriculture produce and clean energy. Host two workshops in 2002 with producers and intermediaries to examine ways of improving partnerships 	60,000
<ul style="list-style-type: none"> • Activity 2: Present CEC market analyses to large-scale buyers, brokers, and industry representatives by convening workshops on demand-side issues and opportunities for shade agriculture produce and "green" electricity 	30,000

<ul style="list-style-type: none"> Activity 3: Examine opportunities to improve transparency and comparability of labeling and certification schemes among Canada, Mexico and the United States, including opportunities for mutual recognition and equivalency of standards. This initiative will comprise maintaining and expanding the CEC database on green goods and services and hosting a meeting of relevant stakeholders 	30,000
Action 2: Identify public policy options needed to support “green” markets	125,000
<ul style="list-style-type: none"> Activity 1: Examine opportunities related to “green” public procurement, and issue an updated report of recent trends in public and institutional procurement activities 	30,000
<ul style="list-style-type: none"> Activity 2: Host a meeting of governments, the private sector and the public on barriers and opportunities to “green” procurement in North America in the energy sector. Special emphasis will be put on the respective roles of the public, private, and NGO sector in support of these markets by scale of operations and in cooperation with OECD, the World Bank and others. Provide an analysis of how specific market-based measures—such as fiscal policies—are meeting the goal of increasing the share of green goods and services in the North American market 	45,000
<ul style="list-style-type: none"> Activity 3: Implement options selected by Council. 	50,000
Total Resources Required	245,000
Total US\$	158,000

Public Participation

Consultations with selected stakeholders, including the private sector producers, market intermediaries such as brokers and buyers, cooperatives and communities, and others, form the foundation of the CEC’s work on green goods and services.

Capacity Building

An important element of this project is capacity building. In particular, efforts will continue to increase the capacity of small and medium-size enterprises in meeting new opportunities in export markets for green goods and services. Work will continue with farming and other cooperatives, small-scale producers, certification and related bodies, buyers and industry, to provide information on two elements: the environmental characteristics of green products and services, including how they differ from mainstream product or services characteristics, and information on market and pricing structures of relevance to green markets.

Expected Results

An important result of this project will be 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 agriculture and ecologically fragile areas (including protected areas), based on lessons learned from these projects. In addition, it will help identify and quantify the possible effects of different economic and trade policies and other instruments. This will include the potential role of labeling and certification, impediments to the marketing of green goods and services, criteria equivalency and mutual recognition of different schemes, as well as the effects of different trade measures.

Expected Partners and Participants

Expected partners will include producers/providers, distributors, marketing retailers, consumer groups, environmental and conservation groups, international organizations concerned with sustainable development, labeling and certification bodies, financial intermediaries and other stakeholders involved in agriculture and energy in green markets.

Linkages to other CEC Projects

This project is conducted jointly with the Conservation of Biodiversity program area. 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, and certification and labeling of non-timber forest and other products. It will also collaborate with the Pollutants and Health program area to explore North American clean energy.

Actions 2003–2004

The CEC anticipates continuing study and work on market mechanisms relevant to the environment and green goods in future years.

1.2.2 Financing and the Environment: Climate Change and Energy

Project Summary

The objective of this project is to increase private financing measures that support environmental protection goals in North America. The role of the private financial services sector in supporting environmental goals is critical. Despite progress, challenges remain in bridging the gap between the information requirements, operational procedures and goals of the financial sector, and environmental goals. Such challenges include identifying indicators and other information that communicates financial risk and investment opportunities related to the environment.

Three areas comprise the work of this project. First, efforts will be placed on identifying and brokering partnerships in support of environment-related financing. In recent years, there has been growing recognition of the convergence between the environmental and financial service agendas. The environment represents an important, dynamic, growing business area for two reasons: (a) environmental management is closely linked to business and financial risk management and (b) the environmental goods and services sector represents an important investment opportunity. The CEC will continue its work in identifying information and financial analysis needed by the financial services sector, in particular, debt, equity and venture capital finance, in supporting investments in green markets. Lessons from the CEC's work in brokering a Shade Agricultural Fund will provide a basis for financing information needed to support other goals in the areas of carbon sequestration, energy efficiency and, renewable energy. The particular focus of this work will be identifying information and other needs required by the financial services sector to support environmentally sound activities among small and medium-size enterprises. Lessons from micro-financing and NAFEC projects are of particular relevance.

Second, the project will focus on ways environmental information—and, in particular, information related to environmental risk—is relevant to improving transparency and stability in financial markets. The project will examine how environmental information is disclosed in financial markets, and how regulatory officials in financial and other sectors make use of and respond to environmental information. Analysis will concentrate on the energy sector—including “upstream” activities of relevance to that sector.

Third, the project will continue to examine opportunities for the financial community related to the climate agenda.

Goals and Objectives

The main goal of this project is to encourage expanded production, consumption and international trade from “green” markets. Experience shows that efforts to support green markets in “win-win” trade-environment links require not only the appropriate public policies, but also innovative partnerships with the private sector.

Among the priorities of the project will be to identify and quantify business opportunities in selected areas of the green goods and services sector. The goal is to expand access to financing and credit in these markets, including (where appropriate) access to micro-credit—both directly through project financing as well as indirectly through supporting market measures. The project will work with the financial services sector and the NGO community to identify ways in which private-public partnerships can be deepened and strengthened.

The project will focus on the following objectives:

- Examine what kind of information is needed to ensure the financial viability of investments related to green goods and services. In particular, examine the kind of indicators and other information investors require to meet returns on investment and financial risk-related objectives.
- Identify lessons from the support of the Shade Agricultural Fund that can be applied to other sectors, in particular, the areas of demand-side energy efficiency, an expanded role for renewable energy goals and water quality infrastructure development.
- Facilitate partnerships between different actors within the financial services sector, to provide targeted information on environmental opportunities in green markets.
- Strengthen the way in which environmental information is assessed by financial markets.
- Compare information disclosure requirements among the three NAAEC countries to examine the extent to which financial regulations impede or promote broader goals of environmental protection. In examining

information disclosure requirements, undertake a literature review of how different indicators and environmental management systems are taken into account by financial regulators, investors and capital markets more generally.

- Examine how environmental information is affecting investment in energy efficiency and renewable energy.
- Convene a meeting of key stakeholders to address the link between carbon sequestration, energy efficiency and energy renewables, focusing on investment opportunities in these areas.

Rationale

The link between environmental protection and the financial services sector has been recognized for some time, and covers two broad areas: the extent to which financial markets can internalize environmental costs and benefits in pricing signals in general; and the availability and conditions of private financing to support environmental goods, including through the investing in green goods and services. Increased private sector funding of environmentally-preferred investments are critical to advancing conservation, and human and ecosystem health.

Progress to Date

In 2001, the CEC undertook several initiatives in the field of financing and the environment. Examples include release of the report on “Investment Opportunities for Small and Medium-size Enterprises in Mexico in the Climate Agenda,” work with the financial services sector in North America and Europe in support of the Shade Agricultural Fund; preliminary analysis comparing security exchange rules in Canada, Mexico and the United States regarding the disclosure of environmental information; a joint meeting in late 2001—organized by the CEC and Cespedes (*Centro de Estudios del Sector Privado par el Desarrollo Sustentable*)—on financing and the environment; and work with the Conservation of Biodiversity program area of the CEC on financing and biodiversity.

Actions 2002

Overview

This project will focus on three areas: lessons learned from other sectors in establishing the Shade Agricultural Fund; analysis at the sector-specific level on how environmental information disclosure is used and can affect capital markets; and further exploratory work on climate change opportunities, with an emphasis on energy efficiency and renewable energy.

2002	Estimated Resources Required (C\$)
Action 1: Explore opportunities to develop a North American market-based approach to carbon sequestration, renewable energy and energy efficiency	190,000
<ul style="list-style-type: none"> • Activity 1: Convene a meeting with key stakeholders from industry, consumer groups, environmental organizations, investors, academia, and government to consider and formulate market-based options to reduce carbon through sequestration, energy efficiency and renewable energy 	40,000
<ul style="list-style-type: none"> • Activity 2: Pursue options for action identified by Council 	150,000
Action 2: Further analysis in support of the creation of Environmental Funds for North America	90,000
<ul style="list-style-type: none"> • Activity 1: Identify partners, data, analytic gaps, and additional work needed in support of the Shade Agricultural Fund 	50,000
<ul style="list-style-type: none"> • Activity 2: Examine opportunities to create a fund for the small-scale renewable energy sector 	40,000
Action 3: Examine how environmental information is disclosed and used in financial markets	50,000
<ul style="list-style-type: none"> • Activity 1: Compare information disclosure provisions among the three countries, focusing on environmental information in the energy sector 	30,000
<ul style="list-style-type: none"> • Activity 2: Convene a meeting of investors, financial regulators, industry representatives and the public on environmental performance, information disclosure and financial performance. Develop policy options for Council 	20,000
Total Resources Required	330,000
Total US\$	213,000

Public Participation

This project is designed to support increased partnerships with the private sector and to clarify links between financing and various market measures, including labeling, voluntary initiatives by industry, and other measures. An important emphasis of the project will be to encourage an ongoing exchange of information between environmental, producer and consumer groups involved in green markets and the financial services sector.

Capacity Building

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

Expected Results

Improved information about financing characteristics of green markets, increased investment and policy opportunities arising from green markets, stronger participation by the private sector and other groups in green

markets, and clarification of the role of public policies and market mechanisms in supporting investments in green markets.

Expected Partners and/or Participants

Along with the specific industry stakeholders, 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, the WBCSD, and others, along with environmental and other groups. Other groups potentially involved will include JPAC.

Linkages to other CEC Projects

This project will inform NAFEC grant making; it will also be closely linked to the Conservation of Biodiversity program area.

Actions 2003–2004

The CEC anticipates the continuing study and analysis of financial mechanisms focusing on issues central to the work program in future years.

CONSERVATION OF BIODIVERSITY

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

Goals

In the context of increasing economic, trade and social links, the Conservation of Biodiversity Program promotes cooperation among Canada, Mexico and the United States in furthering the conservation, sustainable use and sharing of benefits of North American biodiversity. With the direction and guidance from the Biodiversity Conservation Working Group, the Secretariat will start implementing the Biodiversity Conservation Strategy, a long-term agenda to catalyze trilateral conservation action at the North American level, by:

1. Contributing to the maintenance of the ecological integrity of North American ecoregions;
2. Contributing to the mitigation, reduction and eventual elimination of current and future threats to North American shared species and ecosystems;
3. Fostering a continental and integrated perspective to the management, conservation and sustainable use of biodiversity;
4. Strengthening the capacity of a wide array of sectors of North American society to conserve the continent's biodiversity; and
5. Promoting wide public involvement in the conservation, sustainable use and the equitable sharing of benefits of North American biodiversity.

Program Initiatives

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

- Strategic and Cooperative Action for the Conservation of Biodiversity in North America
- North American Bird Conservation Initiative
- Species of Common Conservation Concern
- Mapping Marine and Estuarine Ecosystems of North America
- North American Marine Protected Areas Network
- North American Biodiversity Information Network

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

Project Summary

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

The Strategic Plan for the Conservation of Biodiversity (hereafter: Strategic Plan) operates at both the continental and regional scales, guided with the support of the Biodiversity Conservation Working Group, and evaluated at the regional level by appropriate performance indicators.

Goals and Objectives

Specific objectives include:

1. Helping to safeguard the ecological integrity of key ecosystems in North America by promoting collaborative networks;
2. Fostering the collaboration required to ensure the conservation and recovery of North American migratory and transboundary species;
3. Taking stock of the continent's natural endowment and improving the understanding of the state of North American biodiversity;
4. Promoting effective participation of North American society in planning and implementing conservation measures;
5. Responding to common threats facing North American biodiversity; and
6. Taking advantage of opportunities arising from the expansion of regional trade.

Rationale

The Strategic Plan aims to foster a continental, integrated perspective to the management, conservation and sustainable use of biodiversity; contribute to the maintenance of the ecological integrity of North American ecoregions; and contribute to the mitigation, reduction and eventual elimination of current and future threats to North American shared species and ecosystems. The Biodiversity Conservation Working Group, constituted at the 2001 Council session, will provide guidance and direction on all biodiversity conservation issues related to North America for the CEC Conservation of Biodiversity program.

Progress to Date

This project builds upon previous and current work of CEC, as well as on other work of regional relevance, to create strategies for biodiversity conservation in North America. Previous work of the CEC in this area has included *Ecological Regions of North America*, and *Terrestrial Ecoregions of North America: A Conservation Assessment* (a project undertaken in partnership with the World Wildlife Fund) and *Securing the Continent's Biological Wealth: Towards Effective Biodiversity Conservation in North America—Integrated Baseline Summary*. In 2000, input and feedback was obtained through various forums and from numerous North American stakeholders, including academics, government agencies, the private sector, and NGOs. Also, in a workshop of North American experts in the fields of ecology, conservation biology and environmental studies, fourteen priority regions were identified by their ecological significance, conservation threat, and opportunities. In 2001, the results gathered were reviewed and incorporated into the development of the CEC's preliminary Strategic Plan for the Conservation of Biodiversity, defining lines of action the CEC could take on various themes in the short, medium and long term. The CEC's 2001 Council meeting endorsed the need for the biodiversity strategy and mandated the establishment of a working group to provide guidance and direction for the finalization and implementation of the strategy (Council Resolution 01-03). This group is composed of government and nongovernmental representatives.

Actions 2002

Overview

During the period 2002–2004, work will move from the North American scoping stage to continental- and regional-scale planning, implementation and evaluation. Existing and past initiatives such as the North American Bird Conservation Initiative (NABCI), Species of Common Conservation Concern (SCCC), Marine Protected Areas Network, Trade in Wildlife Species, Sustainable Tourism and other program-related work will be reviewed as potential tools for conservation in each of the targeted geographic regions. A means to track, evaluate and bring long-term guidance to the Strategic Plan will be developed. The Biodiversity Conservation Working Group will provide guidance and direction to CEC’s Conservation of Biodiversity Program, and an effective means will be developed for ensuring the participation of indigenous peoples and other stakeholders in CEC biodiversity-related work.

2002		Estimated Resources Required (C\$)
Action 1: Convene Biodiversity Working Group		25,000
Total Resources Required		25,000
Total US\$	16,000	

Public Participation

Public participation has been and will continue to be an indispensable component of each phase of the implementation of the Biodiversity strategy. Efforts will be continued in coordination with JPAC and the National Advisory Committees to solicit public feedback and the active participation of a broad range of stakeholders.

Capacity Building

The Strategic Plan for the Conservation of Biodiversity recognizes the different approaches and successful experiences in managing and conserving biodiversity between the three countries. To ensure the successful implementation of the Strategic Plan, outreach activities and capacity building, involving biodiversity managers and the needs of other stakeholders, will be identified.

Expected Results

Expected results from this project include:

- Continued review, evaluation and guidance on the overall work of the CEC in the area of biodiversity conservation;
- Broad stakeholder involvement in relevant aspects of program design and implementation.
- Regional Action Plans developed and implemented in CEC priority regions;
- Institutional capacity-building needs identified for the regions;
- Agreement on performance indicators, variables to be measured and scales to be used; and
- Detailed ecosystem data developed from selected regions to assess broader application in other priority regions.

Expected Partners and/or Participants

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

Linkages to other CEC Projects

This project will continue to be carried out in consultation with numerous other CEC programs to devise an integrated approach to biodiversity conservation for the CEC. Moreover, the project will provide crucial feedback concerning the state of the environment in priority regions that will aid in evaluating the effectiveness of conservation initiatives taking place in these regions.

Actions 2003

Overview

In 2003, the implementation of Regional Action Plans will be ongoing and the monitoring system will be established. The Biodiversity Conservation Working Group will convene, as required, to evaluate and provide guidance on the CEC's biodiversity work

2003
Action 1: Continue implementing the Strategic Plan with the guidance of the Biodiversity Conservation Working Group
<ul style="list-style-type: none">• Activity 1: Convene Biodiversity Conservation Working Group meeting(s)
<ul style="list-style-type: none">• Activity 2: Continue support of a mechanism for public participation
<ul style="list-style-type: none">• Activity 3: Support the implementation of concrete actions identified in the Strategic Plan, including monitoring and assessment of biodiversity indicators
<ul style="list-style-type: none">• Activity 4: Support the development of financial mechanisms in priority regions
Action 2: Second Round Table on Biodiversity Conservation
<ul style="list-style-type: none">• Activity 1: Hold the Second North American Round Table on the Conservation of Biodiversity to promote a creative dialogue on priority issues, emerging approaches and best practices related to conservation, sustainable use and the sharing of benefits of biodiversity (including background paper).

2004

The CEC anticipates continued implementation of the Strategic Plan with guidance from the Biodiversity Conservation Working Group.

2.1.2 North American Bird Conservation Initiative

Project Summary

NABCI seeks to build a continental network of public and private organizations to support the conservation and protection of birds and bird habitats in North America. In 2002, the North American Bird Conservation Initiative (NABCI) will enter its third year of implementation of its five-year national action plans.

Goals and Objectives

The goal of NABCI is to enhance cooperation among existing bird conservation organizations to achieve effective protection of birds in North America. The specific objectives for 2002 are as follows:

- Facilitate the development of North America priority actions and their implementation.
- Implement a coordinated series of on-the-ground initiatives to conserve bird populations in North America.
- Partially support the administrative body responsible for designing and coordinating national actions within NABCI.
- Ensure the long-term success of NABCI by supporting the development of financial mechanisms.
- Provide a framework for evaluating NABCI's performance.

Rationale

The North American Agreement on Environmental Cooperation (NAAEC) 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. Bird populations are important indicators of the overall health of biodiversity because they respond quickly to changes and stresses in ecosystems. They are also well studied and understood in terms of their ecological roles.

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 has been 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 specific actions that the CEC can follow in its continued support of NABCI during the following 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.

Progress to Date

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

In 1998, more than 125 experts from the three countries met in Puebla, Mexico, to review a draft 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 led to the development 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

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 in the North American Biodiversity Information Network (NABIN), and activated NABCI Net, the initiative's web-based information system.

Also in 1999, as a follow-up to the Puebla meeting, a US group 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 map of Bird Conservation Regions of North America was created based on the CEC report *Ecological Regions of North America*.

Since 2000, the Trilateral Committee on Wildlife and Ecosystem Conservation and Management embraced NABCI as a North America-wide strategy for bird conservation. Coordinated national strategies and action plans were completed.

A second meeting of North American bird conservationists was held in Querétaro, México, 14–16 February 2001, with the goal of producing a five-year NABCI plan with measurable objectives. The component bird plans: North American Waterfowl Management Plan (NAWMP), Partners in Flight (PIF), Waterbirds and Shorebirds, are well linked to the National NABCI Committees, and each is modifying its operations to be increasingly continental in scope and interlinked with each other. To aid integration and outreach activities of the various NABCI members, a communication strategy will be launched in 2002, together with the implementation of trinational demonstration projects.

Actions 2002

Overview

In 2002, the CEC will continue its support of NABCI, moving from building institutional support for NABCI to implementing action plans, establishing a mechanism for performance evaluation, and stimulating the development of legal and policy recommendations.

2002	Estimated Resources Required (C\$)
Action 1: Support the operation of NABCI national committees	105,000
<ul style="list-style-type: none"> • Activity 1: Support national steering committees and national coordinators to implement the national strategies related to the five-year NABCI plan; related activities may include: initiating the establishment of effective infrastructure for delivery of bird conservation at the level of Bird Conservation Regions, defining the basis for monitoring mechanisms and evaluation frameworks, promoting outreach through broadening NABCI partnerships at a national level 	105,000
Action 2: Implement NABCI demonstration project	100,000
<ul style="list-style-type: none"> • Activity 1: Support the implementation of a demonstration project to illustrate the on-the-ground effectiveness and leveraging potential of the NABCI approach. The demonstration project will support a highly visible demonstration project beneficial to birds of concern to Canada, Mexico and the U.S. 	100,000
Action 3: Capacity building—help to build bird conservation capacity together with NABCI national constituencies	25,000
<ul style="list-style-type: none"> • Activity 1: Hold a workshop addressing the status of bird populations of North America 	25,000

Action 4: Strengthen communication and outreach activities	10,000
<ul style="list-style-type: none"> • Activity 1: Implement communication strategy and continue to support links between conservation and ecological institutions that have information resources relevant to NABCI and NABIN 	10,000
Total Resources Required	240,000
Total US\$	155,000

Public Participation

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

Capacity Building

Efforts for the protection of birds and their habitats are being carried out in each North American country, but significant gaps still exist and many bird populations continue to decline. Through the development of an infrastructure of capable individuals, institutional commitment, and the promotion of training for professional ornithologists, government officials primarily at municipal and state levels, managers, and conservationists, NABCI is helping to fill the gaps in bird conservation for the benefit of all North American birds. Special attention will be given to developing a status of the birds of North America and related conservation institutions.

Expected Results

- NABCI will serve as the focal point for coordinating bird conservation initiatives of continental importance.
- NABCI action plans will be developed, implemented and evaluated in a coordinated effort to protect birds in North America.
- Long-term financial support for NABCI will be sought through a financial strategy and mechanism.
- Legal initiatives and other policy instruments will be pursued by the national NABCI committees to benefit North American bird populations.

Expected Partners and/or Participants

Several 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. Among them are the American Bird Conservancy, Bird Studies Canada, the Canadian Nature Federation, the Canadian Wildlife Service, Cipamex, Conabio, *Dirección General de Vida Silvestre* for the *Instituto Nacional de Ecología*, Ducks Unlimited, Environment Canada, the Faculty of Sciences of the *Universidad Nacional Autónoma de México* (UNAM), *Société de la faune et parcs de Québec*, *Fundación Ara*, the Long Point Bird Observatory, the National Audubon Society, the North American Wetlands Conservation Council (Canada), the North American Waterfowl Management Plan, Pronatura, the Tennessee Wildlife Resources Agency, the US Environmental Protection Agency, the US Fish and Wildlife Service, the *Universidad de San Nicolás de Hidalgo, Michoacán*, and the Wildlife Management Institute. 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 and Querétaro meetings.

Linkages to other CEC Projects

Work on NABCI will proceed closely with the Species of Common Conservation Concern (SCCC) project, coordinating activities and actions related to SCCC birds. The results of the Financing and the Environment project, particularly those stemming from the initiatives on sustainable coffee and the chamaedorea palm, 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. To enhance the information system for NABCI, NABCI Net will be linked with the CEC information portal.

Actions 2003–2004

The envisioned priority areas will be: 1) Strengthening NABCI structure, 2) Continue support to NABCI demonstration projects, 3) Establish a mechanism to monitor bird conservation in North America. In 2004, the CEC will assess the evolution of NABCI as a self-sustaining initiative.

2.1.3 Species of Common Conservation Concern

Project Summary

This project is intended to support the conservation of a selected group of 17 migratory and transboundary species of birds and mammals (the species of common conservation concern—SCCC) and their habitats, through enhanced collaboration among the three North American wildlife services together with a diverse array of stakeholder groups, and the promotion of joint conservation initiatives. Given that a majority of the SCCC are associated with grasslands primary attention will be provided to species associated with this ecosystem.

Goals and Objectives

The goal of this project is to support the conservation of migratory and transboundary species and their habitats.

The specific objectives are:

- Implementation of recovery action plans in support of the conservation of priority grassland species appropriate for collaborative action; and
- Promote awareness of the importance of grasslands and the decline of prairie-dependent wildlife

Rationale

Grasslands are considered among the most threatened ecosystems in North America. Many conservation initiatives have been carried out to protect this ecosystem at a national and binational level, especially within and between Canada and the US. Mexico's potential importance, however, cannot be overstated. Recently, the three Wildlife Services of North America have agreed to work together to protect 17 species of wild birds and mammals considered "Species of Common Conservation Concern" (SCCC). Given that the majority of these species are associated with grasslands, the CEC organized a workshop, with the assistance of the three governments, to establish the foundations of a conservation strategy for these species. One of the key results of this workshop was the elaboration of a shared vision. This vision emphasizes the need to protect grassland species through the conservation of their habitat. Achieving this vision will require an enhanced understanding of the current status and trends of grasslands throughout North America; the identification of areas of conservation and protection priority; addressing current grassland use practices, and the development of outreach efforts. Achieving success will require the participation of diverse stakeholders, especially the engagement of landowners, and the collaboration with ongoing grassland species conservation initiatives.

Progress to Date

In 1999, representative officials from the three governments identified a group of species of common conservation concern for collaborative action. For this stage in the project, the Parties chose terrestrial avian and mammalian species. CEC prepared a report drawing upon the inventories of national agencies (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*—CONABIO, Fish and Wildlife Service, and the Canadian Wildlife Service, among others) as well as additional information on endangered and threatened species provided by conservation organizations and scientific experts. This report, *Species of Common Conservation Concern 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. Since seven of the 17 species identified are closely associated with one region (grasslands), it has also served as a tool for identifying priority regions.

In 2000, this report was endorsed by the CEC Council as well as by the Trilateral Committee for Wildlife and Ecosystem Conservation and Management.

As a follow up in March 2001 the CEC organized a workshop in Nuevo Casas Grandes, Chihuahua, Mexico to develop the basis for a trinational strategy for the conservation of grassland Species of common concern. The workshop involved government representatives from Canada, USA and Mexico, as well as representatives from NGOs, academia and landowners. In April 2001, the CEC presented the results of the workshop to the Canada/Mexico/United States Trilateral Committee For Wildlife and Ecosystem Conservation and Management,

and its Executive Table supported the development of a strategy for achieving the vision established by the Chihuahua grasslands workshop.

Following the recommendations of the workshop, towards the end of 2001 an updated GIS map of grasslands was developed including conservation zoning such as the Important Bird Areas (IBA's) and Bird Conservation Regions (BCR's). A draft strategy and action plans were developed for the implementation of selected recovery activities.

Actions 2002

Overview

The actions for 2002 will promote the recovery of identified grassland priority species through the cooperation of stakeholders and the development of training, education, outreach and monitoring activities and initiatives.

2002	Estimated Resources Required (C\$)
Action 1: Facilitate the implementation of action plans developed by the Grassland strategy	100,000
<ul style="list-style-type: none"> Activity 1: Support pilot projects exemplifying the importance of trinational cooperation in the conservation of shared grassland species of common conservation concern 	100,000
Action 2: Develop a communication strategy to convey the importance of trinational efforts to protect grasslands species of common conservation concern	10,000
Total Resources Required	110,000
Total US\$	71,000

Public Participation

A communication strategy will be developed to effectively disseminate information about the importance of trinational cooperation to accomplish the conservation of grasslands species of common concern. Education programs will be geared toward involving the general public, in conservation activities—with special attention to farmers—and increasing public awareness on the economic, cultural and ecological importance of grasslands.

Capacity Building

The CEC is fostering institutional and technical capacity building in advancing our understanding, appreciation, and capacity for action to protect prairie ecosystems.

Expected Results

In partnership with the Trilateral Committee for Wildlife and Ecosystem Conservation and Management and other stakeholders, concrete action will be taken to conserve migratory and transboundary species of common conservation concern. The importance of habitat conservation and protected areas will be highlighted as a measure to achieve species conservation.

Expected Partners and/or Participants

Current partners include 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. Academia, indigenous peoples, NGOs, as well as state, provincial and municipal governments will be sought as partners as the action plans are developed and implemented.

Linkages to other CEC Projects

In the past, this initiative has helped prioritize geographical regions in North America for the Strategic Plan for the Conservation of Biodiversity. This initiative is also closely linked to NABCI respecting those birds and bird habitats of mutual interest in the prairie ecosystem.

Actions 2003–2004

2003
Action 1: Continue pilot projects related to selected species of common conservation concern
Action 2: Further communication and outreach activities
<ul style="list-style-type: none">• Activity 1: Implement communication strategy to convey to the citizens of North America the importance and results of trinational efforts to protect species of common conservation concern
Action 3: Develop a framework for evaluating SCCC performance and determine future work on SCCC

2004

In 2004, CEC will assess its involvement in the SCCC project based on the evaluation conducted in 2003.

2.1.4 Mapping Marine and Estuarine Ecosystems of North America

Project Summary

This project coordinates the development of comparable marine and estuarine ecosystem and habitat classification systems incorporated by the Parties into a North American geographic information system (GIS). It provides the critical 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 project 2.1.5 North American Marine Protected Areas Network.

Goals and Objectives

The goal of the project is to provide a common mapping framework and habitat and ecosystem classification system for conservation and sustainable use of marine and coastal ecosystems at a continental scale. Specifically the project will:

- facilitate the development by the Parties of a GIS-based map of major meso-scale marine and coastal ecological regions in North America with accompanying descriptions of the regions in each level; 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 estuarine 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. Currently, there is a lack of tools to identify critical areas for conservation at a regional scale and to provide objective measurements of changes in aquatic resources or of the success of management policies and restoration efforts. A targeted approach is needed to make best use of both human and financial resources.

Underlying this targeted approach is basic ecological knowledge about ecosystems and their status. However, it is difficult to gauge the status of North American biodiversity without a common framework for mapping and assessing the continental environment (as was done by the CEC in earlier work for terrestrial ecological regions of North America). Thus the first step in catalyzing effective regional biodiversity conservation is to agree upon a common methodology for defining ecological regions. These ecological regions can then be used as both baselines for periodic assessment, and, perhaps more importantly, frameworks for cooperation to efficiently conserve habitats and the biodiversity that such habitats support.

Progress to Date

Building on existing efforts in the three countries, by the end of 2001 a trinational task force will have worked together to review the existing initiatives and assessed the gaps found in current North American marine mapping initiatives. A straw-man map, developed via a series of interactive web-based GIS group sessions, will have been reviewed and fine-tuned during an expert workshop.

Actions 2002

Overview

For 2002, 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 and the development of the report *Marine and Estuarine Ecological Regions of North America* (available in both hard copy and web versions).

2002	Estimated Resources Required (C\$)
Action 1: Develop Geographic Information System (GIS)–based map of major meso-scale marine and estuarine ecological regions	40,000
Action 2: Publish report outlining habitat and classification systems, describing the major marine and estuarine ecological regions, <i>The Marine Ecoregions of North America</i>	100,000
Total Resources Required	140,000
Total US\$	90,000

Public Participation

Although the development of North American regional marine and estuarine 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 estuarine 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 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 estuarine ecosystem and habitat characterization and mapping in Canada, Mexico and the United States, so as to support decision-makers in setting conservation priorities and actions. 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 has and 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;
- development of consistent and comparable approaches to marine and estuarine ecosystem and habitat classification;
- production of a GIS-based map of major meso-scale marine and estuarine ecological regions in North America;
- the development of a North American action plan that identifies priorities and actions for the conservation of coastal and marine ecosystems in North America; 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

This initiative seeks to bring together the many organizations and agencies that are mapping the marine and estuarine environments of Canada, Mexico and the United States to develop a comparable marine and estuarine ecosystem and habitat classification for North America. The leading partners include the Association for Biodiversity Information, the Canadian Council on Ecological Areas, *Comisión Nacional de Areas Naturales Protegidas*, *CONABIO*, *Instituto Nacional de Ecología*, Natural Resources Canada - GeoAccess Division/National Atlas of Canada, the National Oceanic and Atmospheric Administration, Wildlife Habitat Canada, and World Wildlife Fund (WWF— Mexico).

Linkages to other CEC Projects

This project will be very closely linked with the work of the North American Marine Protected Areas Network and the Strategic and Cooperative Action for the Conservation of Biodiversity in North America. Once it has been developed, the GIS-based map of major meso-scale marine and coastal ecological regions in North America will also be used by the North American Environmental Information Gateway and the North American Gateway for Marine Conservation. The project would also provide a geographic biodiversity context for finer-scale activities, such as those related to conserving North American biodiversity in priority regions—such as Baja California to the Bering Sea (B2B).

Actions 2003

The map and report of major meso-scale marine ecological regions produced in 2002 will be used in the development of a North American marine and estuarine gap analysis and action plan. This activity will be closely linked to the North American Marine Protected Areas Network.

2003
Action 1: Initiate a marine gap analysis
<ul style="list-style-type: none">• Activity 1: Hold workshop of the North American Marine Protected Areas and North American Marine and Estuarine Mapping groups to begin the marine gap-analysis work
Action 2: Based on the results of the workshop, produce an action plan that identifies priorities and actions for the conservation of marine and estuarine ecosystems in North America

2.1.5 North American Marine Protected Areas Network

Project Summary

The ecological linkages between Marine Protected Areas (MPAs)– including migratory patterns and life history stages of various species – suggests the need for improved collaboration in the establishment and management of MPAs. A network of MPAs provides better protection of marine biodiversity than can be achieved by managing MPAs in isolation. The North American Marine Protected Areas Network, coordinated by the North American Commission for Environmental Cooperation (CEC) in collaboration with IUCN's/World Commission on Protected Areas' North American Marine Working Group, aims to enhance and strengthen the conservation of marine biodiversity in critical marine habitats throughout North America by creating functional linkages and information exchange among existing marine protected areas.

Goals and Objectives

The goal of this project is to establish a 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:

- protect critical marine and coastal habitats and North American biodiversity by sharing effective conservation approaches and by developing cross-cutting conservation initiatives;
- enhance collaboration among the three countries to address common challenges inherent to the protection of marine biodiversity and to jointly prioritize conservation actions;
- build regional, 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 American and the world, as called for by IUCN.

Rationale

Marine protected areas are effective tools for safeguarding and conserving critical coastal habitats throughout the varied regions of North America. Although many MPA sites and programs already exist, they are largely operating independently, with relatively little exchange of information, strategies, or lessons learned. Moreover, no single MPA can be large enough to protect ecologically important areas on a regional scale. A network of properly managed and coordinated MPAs, however, can do so effectively and efficiently. A strategic and well-designed network of reserves can accrue enormous benefits by securing the continent's richest and most valuable habitats, focusing management and conservation action at the most ecologically critical places, and presenting little opportunity cost due to the restrictions being spread out over a much wider geography.

Also, while individually MPA sites provide valuable local protection for marine biodiversity, more effective conservation could be achieved if the various sites in North America collaborated and forged meaningful linkages and partnerships.

Progress to Date

Presently, over 250 people from various governmental, non-governmental, academic, indigenous and private sector organizations are participating in the activities proposed by CEC's the North American Marine Protected Areas Network in its Action Plan Framework.

The North American MPA Network arose from a trilateral workshop in November 1999, which subsequently produced proceedings and an associated Action Plan framework (available at the following web site: http://www.orchestrabycrossdraw.com/marinet/Notice.cfm?Notice_ID=39)

The Action Plan framework included seven areas of recommended action:

- Valuing Economic Benefits of MPAs

- Mapping Marine and Estuarine Ecosystems of North America
- Guidelines for Measuring MPA Effectiveness
- Integrated Management Planning
- Expanding Applied Research for MPAs
- Developing an Ocean Ethic
- Protection Standards.

Activities are now being initiated to implement the majority of them while some have a North American-wide focus and others on the sub-region of the Pacific Coast of North America, also known as the Baja California-Golfo de California to Bering Sea (B2B) region.

Presently, over 250 people from various governmental, non-governmental, academic, indigenous and private sector organizations are participating in the activities proposed by CEC's the North American Marine Protected Areas Network in its Action Plan Framework.

The CEC is stewarding this initiative in two ways. First, it is supporting the identification of trinational conservation priorities (species and habitats) and complementary mechanisms to measure the effectiveness of MPAs. Second, it is ensuring that communication among stakeholders, the network of MPAs, and the institutional framework, which provides leadership and coordination in the region, is strengthened and effective.

In order to advance the initiative in this manner, the following activities are being implemented:

Trinational conservation priorities and measuring effectiveness

Marine Species of Common Conservation Concern (MSCCC)

Through this initiative, governments, NGOs and marine conservation scientists are working together to develop a list of migratory and transboundary species of trinational importance at risk.. To produce the list, a workshop was held to build consensus on the methodology to be used for identifying priority species (Monterey Workshop, May 1, 2001). The results of the meeting can be found on Marinet <http://www.orchestrabycrossdraw.com/marinet>. By the end of 2001, a trilingual report on the MSCCC will have been developed which describes the status of the species, and identifies opportunities for collaboration.

Identifying Priority Areas for B2B

This initiative seeks to identify the highest priority areas to protect in the Exclusive Economic Zone off the West Coast of Canada, Mexico and the US – an essential first step towards establishing a network of marine protected areas along the Pacific Coast of North America. The priority areas map will focus the attention of all players on the resources that most deserve protection, serving as a means of catalyzing viable systems of marine protected areas from Baja to Bering. To produce the map, a strategy building session, involving marine conservation NGOs, governmental agencies, intergovernmental organizations, and fisherman's organizations, was held to build consensus on the methodology to be used for identifying priority areas (Monterey Workshop, May 2-3, 2001). The results of the meeting can be found on Marinet <http://www.orchestrabycrossdraw.com/marinet>. Presently, through a partnership with the Marine Conservation Biology Institute (MCBI) the best available scientific data and traditional ecological knowledge is being compiled.

Marine Conservation Targets and Indicators

This initiative is helping to provide a realistic appraisal by scientists of the ability of MPAs to achieve specific goals, and how these goals will be measured. During a workshop held May 2-3, 2001, the development of a generic framework to gauge management effectiveness was initiated. By the end of 2001, these results will have been incorporated into broader practices focused on employing effectiveness measures in the successful management of MPAs.

MPA networking and capacity building
NA MPA Managers Meeting

By the end of 2001, MPA managers of North America will have been brought together to identify commonalities to define best practices and identify needs (including those to be fulfilled by the *North American Gateway for Marine Conservation*, and the work on *Targets and Indicators*).

North American Gateway for Marine Conservation

In coordination with the CEC’s North American Environmental Information Gateway, Center for International Earth Science Information Network (CIESIN) – Columbia University, DFO, the *Comisión Nacional de Areas Naturales Protegidas*, NOAA, IUCN’s World Commission on Protected Areas (North American Marine), Ramsar and other international initiatives, governmental and NGO partners, the CEC is working to develop a marine conservation gateway for MPAs managers, NGOs, decision makers, academics and other users to support the North America MPA network. This visual, geographical information system (GIS)- and collaborative web-based tool will provide information on the essential elements of North American marine conservation initiatives. Using the data from existing Canadian, Mexican and US inventories, this tool will allow users to access different North American databases through different query capabilities (i.e. by clicking on a MPA site on a map, or through name or theme searches). It will also facilitate communications and provide a vehicle for members of the North American MPA Network to inform each other about important marine conservation related documents, events, and issues. Moreover, it will serve as an international clearinghouse for information on MPA effectiveness, illustrating trends in important variables (e.g. top predators, economically important fish, and Marine Species Common Conservation Concern). In the spring of 2001. The CEC Marinet, <http://www.orchestrabycrossdraw.com/marinet>, the joint collaborative web tool was enhanced, and by the end of 2001, a needs assessment document and prototype for the gateway will have been developed based on feedback received from MPA managers and decision makers.

Institutional Strengthening

- The CEC is partnering with the Baja California to Bering Sea (B2B) Marine Conservation Initiative to bring together NGOs, government, scientists, and interested individuals to help restore and conserve the unique biodiversity and productivity of the Pacific Coast of North America through a linked network of marine protected areas. In 2001, the various stakeholders involved in the B2B initiative developed a Strategy for marine conservation in the region. The Strategy can be found on Marinet <http://www.orchestrabycrossdraw.com/marinet>.

Actions 2002

Overview

Work in 2002 will continue on identifying and building support for trinational conservation priorities and the strengthening of capacity in the region.

2002	Estimated Resources Required (C\$)
Action 1: Trinational Conservation Priorities	130,000
<ul style="list-style-type: none"> • Activity 2: Convene experts to identify priority areas within the Baja-to-Bering region, including the development of supporting materials and maps. 	90,000
<ul style="list-style-type: none"> • Activity 3: Present priority areas map and related materials to key decisionmakers and other stakeholders in the Baja-to-Bering Region. The CEC will explore partnering and cost-sharing opportunities for holding a meeting to discuss key marine conservation initiatives in this region. 	40,000
Action 2: Capacity Building, Outreach and Publications	110,000
Activity 1: Publish and distribute MSCCC report	30,000
<ul style="list-style-type: none"> • Activity 1: Continue development of the <i>North American Gateway for</i> 	30,000

<i>Marine Conservation</i>		
• Activity 2. Support the outreach strategy to promote and educate stakeholders about the value of linking Marine Protected Areas		15,000
• Activity 3: Support the capacity building actions identified in the MPA managers meeting held in 2001.		35,000
Total Resources Required		240,000
Total US\$	155,000	

Public Participation

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

Capacity Building

The fundamental purpose of creating an integrated, interactive network of North American MPAs is to build global capacity, sharing information on lessons learned about effective conservation strategies, emerging threats to protected areas, and funding or outreach opportunities. It is anticipated that all members of the network will benefit equally from this exchange. Training of MPA managers is considered at the core of the MPA network, and its first workshop is to be held in the year 2002.

Expected Results

The North American MPA network will produce two distinct but related results. First, it will create an alliance of MPAs throughout North America that continues to share critical information to improve the efficacy of marine biodiversity conservation efforts at the regional, national 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

The following agencies and organizations have played an important leadership role in building the North American MPA Network, and are expected to continue as partners and/or participants in the future: Canadian Parks and Wilderness Society (CPAWS), Department of Fisheries and Oceans (DFO), Marine Conservation Biology Institute (MCBI), National Oceanic and Atmospheric Administration (NOAA), Ramsar, *Secretaría de Medio Ambiente, Recursos Naturales y Pesca* (Semarnap), *Instituto de Ecología de Xalapa*, WCPA North America-Marine of IUCN and World Wildlife Fund (Mexico). Although too numerous to mention here, other partners for this project, developed in part from the 1999 North America MPA Workshop, the 2000 and 2001 Baja to Bering meetings as well as the 2001 Monterey Workshops and the subsequent outreach efforts, include MPA managers, governmental agencies, NGOs, academia local communities, indigenous groups and the private sector.

Linkages to other CEC Projects

This project is closely linked to the project, Mapping Marine and Estuarine Ecosystems of North America, the Environment Economy and Trade program, the North American Environmental Information Gateway, as well as potentially the Sound Management of Chemicals project: 1) the maps produced by the Marine and Estuarine Mapping project 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; 2) the North American Marine Protected

Areas Network project is working with the Environment Economy and Trade program to develop financial mechanism for MPAs; 3) the North American Gateway for Marine Conservation is being developed closely with the North American Environmental Information Gateway; and 5) Council Resolution 99-02 concerning the Sound Management of Chemicals (SMOC) calls for the development of a North American Regional Action Plan on monitoring and assessment of persistent toxic substances (PTS)—MPAs are ideal sites to establish monitoring baseline sites.

Actions 2003

2003
Action 1: Continue to implement the North American MPA Action Plan
<ul style="list-style-type: none">• Activity 1: Continue implementation of priority area activities identified in the North American Marine Protected Areas Action Plan, including those related to: 1) evaluating economic benefits of MPAs; 2) defining marine bioregions of North America; 3) developing guidelines for measuring MPA effectiveness; 4) integrated management planning; 5) expanding applied research for MPAs; 6) encouraging an “ocean ethic”; and 7) developing protection standards
Action 2: Hold a workshop of the North American Marine Protected Areas and North American Marine and Estuarine Mapping groups to begin the marine gap-analysis work

2.1.6 North American Biodiversity Information Network

Project Summary

This project will assist institutions and agencies that collect, manage or use biodiversity data to collaborate in providing 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 public accessible and free.

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

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 that information across North America. Another important goal is the use of NABIN as support tool for CEC programs that will benefit from the integration of environmental information.

These goals will be pursued through the following objectives:

1. To continue the development of a North American Biodiversity Information Network, by increasing the participation of the distributed collaborative network of biodiversity information; and expanding the user base and direct users to new sources of data, including other taxa, and observational and monitoring data;
2. To promote the exchange of biodiversity data among private and public entities;
3. To identify gaps in existing data and knowledge;
4. To provide leadership in developing applications and information tools to national, regional and global biodiversity initiatives (NBII, IABIN, CHM, etc.); and,
5. To develop examples of direct uses of NABIN to support CEC program activities such as threats from invasive species creating a network of marine protected areas.

Rationale

There is no comprehensive understanding at the North American level of current biodiversity data, 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 non-governmental agencies are underway to develop national and global environmental databases, including information on species and other natural resources information management standards and different systems of taxonomic classification. NABIN seeks to identify existing data sets and an effective means to access them.

Accessible and accurate scientific information is necessary for sound conservation management. Many environmental systems in North America transcend boundaries, thus the need to share information. By sharing and accessing biodiversity data at North America level, classification conflicts can be avoided and facilitates more coherent, cooperative actions. It will also produce economies of scale and avoid duplication of efforts. Finally, a regional initiative will enable North America to provide leadership in global efforts to make biodiversity information better organized and more accessible.

Environmental Information Gateway: a Link to North America Biodiversity

The establishment of an Environmental Information Gateway will link NABIN tools and institutions with selected data among CEC programs to provide a unique window into key North American ecological issues.

Progress to Date

The project has developed tools that are now providing better access to biodiversity information and have been tested in pilot studies of birds, invasive species, grasslands and marine protected areas. Issues such as taxonomic concerns on data quality and standards for information about data sets (metadata), have also been identified. The increasing number of institutional participation in data sharing and the conservation strategies using biodiversity information, have contributed to guide the development of tools for data searching and related content information, it is expected that species analyst will continue to evolve as other internet tools become available.

During the 2001 CEC council session, the Integrated Taxonomic Information Initiative (ITIS) officially launched ITIS- North America. This was a major step in providing taxonomic information and common names in three languages. ITIS-NA links directly with Species Analyst and REMIB (*Red Mexicana de Información sobre Biodiversidad*), contributing to the network of institutions that can share information. The opportunities to enhance collaboration for observational data have been maturing too, as Environment Canada's EMAN (Environmental Management and Assessment Network), continue to offer users access to their monitoring and assessment partners. NABIN has been working closely with the Invasive Species initiative to support opportunities for a coordinated action plan with the World Bank, the US Geological Survey (USGS) and IABIN. In 2001, focus was on aquatic invasive species as they were related to Marine protected areas, and to the grasslands initiative for North America. NABIN-related proposals have been promoted among academic institutions and non-government organizations to further other tools and applications for conservation of biodiversity. NABIN Steering Committee and a biodiversity working group contributed to the development of a strategic vision for NABIN.

Actions 2002

Overview

NABIN will focus on areas suggested by the strategic vision of the steering committee, and will link CEC programs to facilitate better data integration.

During 2002-2004 NABIN will continue to offer its knowledge and expertise to participants in IABIN, to optimize resources and projects of benefit to the North American region. NABIN technology will allow users to interconnect databases on invasive species and undertake geospatial analyses of the data. The databases will include information on aquatic and terrestrial invasive species and the institutions that provide them. A list of invasive species experts from the three countries and the links to local governments will be integrated to the ecoregional data.

Because NABIN users can access information on biodiversity in regions other than North America, an additional merit of the project is that it will be perceived as a key regional initiative supporting hemispheric and global initiatives. NABIN will continue the development of Species Analyst, new institutions will be connected, NGO's will be invited, and means for public access will be identified.

2002	Estimated Resources Required (C\$)
Action 1. Increase collaboration and participation in international biodiversity activities in North America.	40,000
<ul style="list-style-type: none"> • Activity 1: Outreach to museums, government agencies, academic institutions and NGOs to increase sharing of data and the use of NABIN to increase knowledge-sharing with international initiatives (GBIF, IABIN, CHM, EMAN, WMC), and develop joint initiatives for North America 	15,000

Proposed Program Plan and Budget: 2002–2004
Conservation of Biodiversity

<ul style="list-style-type: none"> Activity 2: Develop community based case studies on biodiversity indicators at ecoregion level using NABIN framework, to support ecosystem monitoring and management actions 	25,000
Action 2: Support the ongoing development of NABIN information management tools: integration of Species Analyst, Red Mexicana de Información sobre Biodiversidad (REMIB), EMAN Canada and the NABIN Portal.	90,000
<ul style="list-style-type: none"> Activity 1: Strengthen the communication capability among NABIN institutions by developing visual resources included in NABIN's portal, on applications, support materials and examples featuring NABIN accomplishments, also allowing access to CEC databases. 	20,000
<ul style="list-style-type: none"> Activity 2: Increase institutional consensus and data integration – Steering Committee meetings and follow up 	20,000
<ul style="list-style-type: none"> Activity 3: Unified REMIB and Species Analyst- adding a Geospatial interface with georeferencing capabilities. 	20,000
<ul style="list-style-type: none"> Activity 4: Develop a training workshop for key user groups in the use of NABIN's data search and modeling for biodiversity analysis. 	10,000
<ul style="list-style-type: none"> Activity 5. Identify opportunities to capture and use critical data and implement data integration and public access within NABIN Portal, adapting web tools that link dynamically data among participant institutions. 	20,000
Total Resources Required	130,000
Total US\$	84,000

Public Participation

Public participation in the objectives of NABIN is ensured through the establishment of a web interface that links to CEC programs, documents and distributed databases 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 within each ecoregion. Furthermore, partner institutions in NABIN will provide a framework for the JPAC to have continuous access to biodiversity information and CEC program implementation at ecoregional level.

Capacity Building

NABIN links communities with independent information needs by interconnecting institutional resources and expertise. 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, ability of all communities to participate in environmental issues, increased collaboration and sharing of expertise, and an integrated framework for other environmental information projects and initiatives.

Expected Results

The project will offer national, regional and international groups informational management tools for access to databases and their metadata, and procedures to deal with incomplete information and data sets residing on different platforms, issues of copyright and collaboration with other projects. In addition, the project will also offer a means

to integrate diverse data, thereby giving users a gateway structure for biodiversity information, CEC programs, and community interest groups in North America. And last, because of the collaborative emphasis of the project with other initiatives, it will foster greater sharing of expertise and information to support decision making at different government levels.

In the year 2002, efforts will be directed toward improving the web user interface, and incorporating other taxa into the distributed query system. NABIN will offer:

- a tool for rapid response to combat the introduction and spread of invasive species;
- an integrated perspective of North American species;
- a means to integrate databases containing complementary information or other taxonomic data residing on different servers, platforms and regions;
- a solution to problems associated with taxonomic authority;
- meta-data information and geo-spatial display and analysis;
- integration and support of NABIN to other CEC projects;
- unrestricted access to North American biodiversity information; and
- interconnection to different types of data, institutions and individuals.

Expected Partners and/or Participants

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

- 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 and other academic institutions and NGOs.
- Other initiatives such as Species 2000, the Integrated Taxonomic Information System (ITIS), the Global Biodiversity Information Facility (GBIF), and the Clearing House Mechanism (CHM).

Linkages to other CEC Projects

This project will continue to emphasize its support to the CEC programs by integrating information for biodiversity conservation within CEC. Moreover, the project will provide crucial feedback concerning the state of the environment in priority regions that will aid in evaluating the effectiveness of conservation initiatives taking place in these regions.

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 and population information. Future applications of NABIN will link to other CEC projects by providing project-specific data correlation and integration for otherwise unrelated data sets.

Actions 2003

Overview

The NABIN institutional participation will continue to support information shared-base for North America. Information access will support the management decisions at ecoregional and local levels. The North America Environmental Information Gateway will be ongoing in support to governments, CEC programs, academic institutions and public participation. The NABIN steering Committee will provide the venue to the most effective impact in project implementation.

2003
Action 1: Continue collaboration and participation in biodiversity activities in North America.

- Activity 1: Strengthen knowledge-sharing with International Initiatives
- Activity 2: Develop a community based application for observational data with support to NABCI and Marine Protected Areas
- Activity 3. Link NABIN information management tools to on going global climate change initiatives.

Action 2: Promote the use of NABIN information management tools.

- Activity 1: Increase institutional Participation.
- Activity 2: Expand data sets access and integration.
- Activity 3: Enhance CEC data and communication tools.

2004

The CEC anticipates continued implementation of NABIN with guidance from its steering committee. Other data sets will complement the biodiversity information, as they become available in digital format. Better tools will be available to expand local government data access and participation.

POLLUTANTS AND HEALTH

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

This program area aims to pursue the following objectives:

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

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

Program Initiatives

Five programs and their subsidiary projects specifically address the protection of human and ecosystem health. These include a new program on Children's Health and the Environment in North America. This initiative, along with related work in other areas, responds to Council Resolution 00-10 "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

Children's Health and the Environment in North America

- Children's Health and the Environment in North America

3.1.1 Facilitating Trilateral 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. The project has three main action areas for 2002:

- Convene a North American Air Quality Summit
- Support the development of an association of Mexican air quality professionals
- Facilitate exchange opportunities for air quality professionals in North America

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 and exports. Increased knowledge and understanding of the priorities and programs of the various air agencies in North America are keys for increased cooperation on a North American level. Greater exchange of information will lead to improved air quality management in North America and, at the same time, maximize resources and avoid duplicating efforts of other institutions.

Progress to Date

In 2001, the CEC entered a cooperative agreement with the *Fundación México-Estados Unidos para la Ciencia* to support the creation of a network of Mexican air quality professionals. The purpose of this action was to create and support trilateral cooperation in the sound management of air quality in North America by establishing a Mexican network as a focal point for cooperation with networks in Canada and the United States. The network in Mexico builds upon the experience of a Mexico-US binational group formed under the leadership of Luisa Molina and the Mexican Nobel laureate Professor Mario Molina. The Mexico network will bring together government agencies, industry, nonprofit public interest groups, academic institutions and others with knowledge and experience on air quality issues in Mexico.

The CEC air program also facilitated the exchange of information and experiences among air quality professionals in North America by contributing support to several North American air quality meetings. These meetings included a climate change workshop of the Conference of the New England Governors and the Eastern Canadian Premiers, an Environment Canada workshop on air quality forecasting and applications with participation from Mexico and the United States, and a symposium at the Massachusetts Institute of Technology on regional and global transport of air pollution.

Actions 2002

Overview

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

North American Air Quality Summit

In 2002, the CEC air program will convene a trilateral meeting on air quality issues in North America. The CEC will seek public input on the major areas of concern regarding air quality in the North American context. The CEC plans to use feedback from the air quality summit in setting future priorities for the air program as it continues to evolve in response to government and public needs.

Development of an Association of Mexican Air Quality Professionals

As the result of recommendations from the inaugural meeting of North American air pollution management officials in Asheville, NC in April 2000 in conjunction with the spring meeting of the State and Territorial Air Pollution Program Administrators/Area and Local Air Pollution Control Officials (STAPPA/ALAPCO), the CEC air program initiated an effort in 2001 to create an association of air quality professionals in Mexico. By leveraging on current initiatives at the *Fundación México-Estados Unidos para la Ciencia* (FUMEC), the CEC is facilitating cooperation, coordination, and collaboration between air officials and others in the three countries. In 2002, the CEC will continue support for this effort at FUMEC by assisting in further activities to develop institutional capacity in Mexico through air quality professional training and the collection of more complete air quality information.

Exchange Opportunities for Air Quality Professionals in North America

This exchange program, begun in 1999, provides opportunities for technical and planning staff to meet with their counterparts from the other North American countries. These meeting 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 diesel smoke testing 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.

2002	Estimated Resources Required (C\$)
Action 1: North American Air Quality meeting including background paper(s) and related preparatory work	100,000
Action 2: Association of Mexican Air Quality Professionals	50,000
Action 3: Exchange opportunities for air quality professionals in North America	30,000
Total Resources Required	180,000
Total US\$	116,000

Public Participation

The North American Air Quality Summit will be a key opportunity for public input into the future direction of the CEC air quality program. The association of Mexico air quality professionals also provides a new institutional forum encompassing interested participants, but from all relevant sectors having expertise in air quality issues affecting Mexico as well as the rest of North America.

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. The work with FUMEC on the Mexico air professional's network provides an institutional framework for interacting with participants in similar organizations across North America.

Expected Results

Upon the completion of these initiatives, the CEC expects that the North American air quality management agencies will have a much improved level of knowledge of one another. This will result 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, provincial and local air pollution control agencies, Semarnat, Mexican state and municipal air pollution control agencies, *Fundación México-Estados Unidos para la Ciencia*, US EPA, State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO), industry, environmental and public health groups.

Linkages to other CEC Projects

This project has elements that link with the Sound Management of Chemicals and the Pollutant Release and Transfer Register projects.

Actions 2003–2004

2003
Action 1: Association of Mexican Air Quality Professionals
Action 2: Exchange opportunities for air quality professionals in North America
Other actions to be determined
2004
Action 1: Exchange opportunities for air quality professionals in North America
Other actions to be determined

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.

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. The central focus of the project in 2002 is to facilitate the development of trilateral air contaminant and greenhouse gas emissions inventories. This entails gathering, compiling, and sharing high quality environmental information among the three countries.

Rationale

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

Credible and accurate information is crucial to addressing pollution problems within transboundary airsheds. In order to facilitate effective cooperative efforts, air quality planners need reliable information on the characteristics and dynamics of transboundary airsheds, interaction between airsheds, and the movement of pollutants emitted into the environment through the atmosphere. Promoting 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). Building upon this initial resolution, the CEC Council adopted Council Resolution 01-05 on June 29, 2001 for "Promoting Comparability of Air Emissions Inventories" in North America. The Council recognized a need for air emissions information to support regional transboundary air quality planning activities, and that the CEC could assist in addressing this need by building upon its experience with pollutant release and transfer register reporting in North America. The CEC will be assessing reporting comparability in the three NAFTA countries for a number of key air pollutants, including sulfur dioxide, nitrogen oxides, volatile organic compounds, particulate aerosols, and greenhouse gases.

Progress to Date

During 2001, the CEC air program collaborated with the Sound Management of Chemicals program to develop a national mercury air emissions inventory in Mexico. This work will be combined with national inventories in Canada and the United States to give, for the first time, a continental perspective of source regions for mercury air emissions in North America.

At the end of 2001, the CEC air program held initial meetings on the development of trilateral air emissions inventories with technical staff from government agencies in each of the three countries. The working group has begun defining the issues of data comparability and information access needed for regional cross border air quality planning efforts. Following the government meeting, the CEC held a meeting in conjunction with the PRTR Consultative Group to obtain public input into the new air emissions inventories project.

Also in 2001, the CEC air program initiated an effort with the *Instituto Nacional de Salud Pública* in Cuernavaca, Morelos, México, to assess air pollution impacts on the health of children and other sensitive population groups. The initial step in this effort was a pilot project to look at linkages between public health databases and ambient air monitoring information at a major border crossing between Ciudad Juárez, Chihuahua, and El Paso, Texas. In

recognition of the linkage between public health air pollution exposure along trade and transportation corridors, this activity has been moved to the Trade and Transportation Corridors project (3.1.3) in the 2002–2004 workplan.

Actions 2002

Overview

North American Air Emissions and Greenhouse Gas Inventories

With the adoption of CEC Council Resolution 01-05 on air emissions inventories, the CEC air program will be assessing the comparability and accessibility of air emissions information, including greenhouse gases, in the three member countries. The CEC will be working with a project team composed of the inventory experts in each of the three countries in carrying out the tasks of the new resolution. This project will also solicit public input through joint meetings with the regularly scheduled PRTR Consultative Group meetings.

In accordance with Council Resolution 01-05, the CEC will initially focus on sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, particulate aerosols, and greenhouse gases. The CEC will assess progress in enhancing the comparability of North American air emissions inventories, with a goal of improving the comparability of definitions and nomenclature, the scope and resolution of shared inventories, emissions estimation techniques, the treatment of confidential business information, database structures, and reporting formats. The CEC project team will develop recommendations to improve access to, and understanding of, air emissions data. This initiative will work with ongoing activities by other national and international bodies pursuing similar objectives.

2002	Estimated Resources Required (C\$)
Action 1: North American air emissions and greenhouse gas inventories	245,000
• Activity 1: Convene regular meeting(s) of government inventory experts	55,000
• Activity 2: Convene two meetings with PRTR Consultative Group	35,000
• Activity 3: Compile and review data and develop inventories report	105,000
• Activity 4: Translation, publication, and distribution of report	50,000
Total Resources Required	245,000
Total US\$	158,000

Public Participation

All reports developed through efforts supported by the CEC will be made available to the public. As the technical bases develop through the described activities, the CEC will be soliciting public input to identify and assess emissions inventory reporting and accessibility issues.

Capacity Building

This project will help develop capacity among air quality managers in improving ways to address transboundary air pollution through the development of comparable emissions information.

Expected Results

The project will assist governments and the public in sharing and understanding air emissions and greenhouse gas inventories on a comparable basis in North America. It will build upon previous PRTR reporting experiences at the CEC to develop similar trilateral reports for air emissions and greenhouse gas inventories.

Expected Partners and/or Participants

Environment Canada, Semarnat, and US EPA, along with provincial, state and local air quality agencies with expertise in air emissions inventories. Industry, environment, and public health groups will also assist in this effort through the joint PRTR Consultative Group meetings.

Linkages to other CEC Projects

This action is strongly linked to ongoing work with the Pollutant Release and Transfer Register project. Emissions information from the electricity generation sector collected through this activity will support the Article 13 Electricity and Environment Initiative. Technical expertise on inventories brought together within this action will also assist the work of the Sound Management of Chemicals activity.

Actions 2003-2004

2003
Action 1: North American air emissions and greenhouse gas inventories
2004
Action 1: North American air emissions and greenhouse gas inventories

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 associated with transport along North American trade corridors. Such issues affect all three countries of North America. Included in this project is an action to assess public health exposure, including children's, to vehicle emissions at selected congested trade corridor border crossings.

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.

The near-term objectives of this initiative are as follows:

- Pursue the development of protocols designed to facilitate cooperation on the near-term reduction of transport-related diesel emissions.
- Identify key areas of concern regarding public health exposure to air pollutants from vehicle emissions at selected congested border crossing points.

Rationale

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 American 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 indicate that truck traffic has increased substantially in the past decade, a trend that is forecast to continue in the future.

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

In 2000, the CEC sponsored a discussion paper by ICF Consulting to look at potential environmental impacts from increased trade along five corridor segments in North America—two crossing the Mexico-US border and three

crossing the Canada-US border. This effort also formed a stakeholders advisory group, (government and non-government representatives from each country) to help identify likely environmental impacts (with special emphasis on air quality) of North American trade and transportation corridor development, and describe opportunities for the prevention or mitigation of these.

The work by ICF led to a public presentation of the discussion paper at a CEC-sponsored workshop in Winnipeg, Manitoba, on 15 March 2001. Comments received at the meeting and during a six-week comment period that followed led to revisions of the discussion paper, which ICF completed in the fall of 2001.

Actions 2002

Overview

The CEC air program has identified two activities for 2002 based on JPAC and public comments and advice submitted to the CEC as a result of the ICF discussion paper and Winnipeg meeting. The first activity is to work with government agencies and interested stakeholders on developing protocols to help reduce diesel emissions from heavy-duty trucks at border crossings. The second is to examine for public health implications (including children and other vulnerable populations) from exposure to air pollution from vehicle emissions at congested border crossings, with an emphasis on exposure to diesel exhaust.

Trinational protocol to reduce diesel emissions at congested border crossings

Truck traffic can have a significant impact on public health and the environment in many regions of North America. For example, according to estimates in the northeastern United States, heavy duty diesel emissions comprise 33 percent of all nitrogen oxides and 80 percent of all particulate emissions from mobile sources. Nitrogen oxides are ozone precursors and contribute to the formation of smog that causes lung scarring and aggravates lung disease. The US EPA has labeled diesel particulates as a likely human carcinogen and the California Air Resources board considers diesel particulate a toxic air contaminant. In addition, diesel exhaust contains 40 other known carcinogens, including benzene, 1-3 butadiene, formaldehyde, and acrolein.

The contribution from diesels to the nitrogen oxides, particulates, and toxics inventories is rising relative to other sources. Several factors contribute to this trend of increasing diesel pollution. First, the use of diesel fuel to power the continent's fleets of buses and trucks is becoming more pervasive due to the durability of these engines and the low cost of diesel fuel. Second, the growth in truck and bus fleets continent-wide continues to increase steadily. Third, the average age of the existing heavy-duty diesels is increasing due to the durability of the engines. For example, diesel engines are now being manufactured that can be driven one million miles before the original engine must be rebuilt.

Older engines pollute at a much higher rate than new engines due to engine deterioration and less stringent emission levels in older model-year engines. Thus, targeting emissions from older diesel engines as well as reducing emissions from new engines is essential to reducing the pollution from the continent's diesel fleets in the near term.

In an effort to address public concern over excess diesel smoke (particulate matter), the CEC is initiating an action to reduce emissions from heavy-duty trucks in North American trade and transport corridors. The CEC will support an effort to develop a list of stakeholders to be involved in a dialogue about developing North American protocols for expanding and harmonizing current smoke inspection efforts. The CEC will sponsor a workshop to a) educate stakeholders about existing programs; b) examine the feasibility of expanding current programs to areas not currently testing heavy-duty diesel trucks; c) explore issues related to smoke testing such as congestion at border crossings and equity issues; and (d) undertake two pilot smoke testing projects for near border locations in NAFTA corridors.

This initiative will build on successful state and provincial initiatives to reduce diesel emissions from heavy-duty trucks through smoke testing programs. It will also build on EPA's efforts to harmonize state smoke inspection programs, and CEC's work to characterize the emissions increases associated with NAFTA truck traffic. A group composed of stakeholders from federal and state governments, trucking associations, public health and environmental groups, and others will be formed to act as advisors to this initiative.

Public health assessment of exposure to vehicle emissions at congested border crossings

This action will focus on children’s and other population groups’ exposure to air pollution in the vicinity of congested border crossings, with an emphasis on exposure to diesel exhaust. The work will build upon a pilot project in Ciudad Juárez-El Paso that is developing and implementing methodologies for investigating linkages between public health databases and ambient air monitoring information collected in the vicinity of congested border crossings. The initiative will also pilot similar assessment work to examine relationships between respiratory illness and transport emissions at the US-Canadian border crossing. This will help provide decision makers with estimates of the health impacts of air pollution on children and other sensitive populations along congested trade corridors, including an accounting for vulnerability linked to poorer living conditions. It is also in keeping with recent Joint Public Advisory Committee advice to the CEC to develop partnerships and conduct trade/transport pilot projects in border regions.

This initiative will lay the foundation for comparing air pollution exposure assessments in Mexico to comparable work performed in Canada and the United States, and extend for the first time the methodologies to other Mexican cities outside of Mexico City. A future goal is to attempt to discern differences and similarities in public health responses to urban air pollution mixtures in different cities across North America. Potential differences may lead decision-makers to identify particular components within a given urban air pollution mixture that may call for different pollution control strategies relative to other North American cities.

2002	Estimated Resources Required (C\$)
Action 1: Support a trilateral protocol for reducing diesel emissions at congested border crossings	45,000
Action 2: Develop and employ methodologies using public health databases and ambient air monitoring to assess public health exposure to vehicle emissions at selected congested border crossings, with an emphasis on diesel exhaust	150,000
Total Resources Required	195,000
Total US\$	126,000

Public Participation

Public participation by interested stakeholders will occur during the development of cooperative protocols to reduce diesel smoke emissions at congested border crossings.

Capacity Building

The diesel smoke testing protocol development will build capacity to evaluate region-wide environmental impacts and policy options beyond local, state, provincial or federal jurisdictional boundaries. The public health assessment will bring together members of the public health research community with air quality planners in addressing air pollution impacts associated with congested border crossings.

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 groups, local governments, ground-based freight shipping and other private businesses. Also involved will be members of the public health research community. Implementation of the initiative will depend upon active collaboration of key health and environment bodies.

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 the Sound Management of Chemicals and the Children's Health projects as well as the Environment, Economy and Trade program.

Actions 2003-2004

2003
Action 1: Continue assessing public health exposure to air pollutants along congested trade corridor border crossings
Other actions to be determined
2004
Action 1: Continue assessing public health exposure to air pollutants along congested trade corridor border crossings
Other actions to be determined

3.2.1 Sound Management of Chemicals (SMOC)

Project Summary

The Sound Management of Chemicals (SMOC) project is an ongoing intergovernmental initiative to reduce the risks of toxic substances to human health and the environment. The priority has been to address persistent and bioaccumulative 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 NARAPs.

The focus to date has been on a chemical-by-chemical approach for a select few substances that are of global concern. However, other approaches to the sound management of chemicals are expected to be given greater attention in the future. These 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, (3) evaluating progress under the SMOC initiative; (4) the consideration of clusters or groups of chemicals, and specific industrial sectors or industrial complexes; and (5) innovative technologies that emphasize pollution prevention over pollution control.

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 actions on reducing chemical pollution in North America using a life-cycle approach. The activities have been structured to establish an overall framework for the three countries to reduce chemical pollution, with particular focus on chemical substances that are persistent and toxic and which bioaccumulate in living organisms.

The specific objectives for the Sound Management of Chemicals include:

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

Rationale

Chemical pollutants—especially those that are persistent and toxic, that 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).”

In May of 2001, with the signing of the Stockholm Treaty on Persistent Organic Pollutants, these pollutants are now recognized as being of global concern. It is anticipated that implementation of the treaty obligations on a regional basis will be encouraged. The SMOC program has put North America in a leadership position in employing regional approaches.

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 SMOC, the major costs associated with implementation will be directed at 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 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) for 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 United Nations Environment Programme (UNEP) list of persistent organic pollutants—PCBs, DDT and chlordane—have been developed and approved by the CEC Council. A fourth NARAP on mercury has been completed and was approved by the Council in Dallas, Texas, at its seventh regular meeting. This Phase II component of the NARAP delineates specific actions as a follow-up to the Phase I component, which established the framework for trinational action to reduce mercury uses and releases to the environment.

Under the “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Initiative,” the countries review substances that have been nominated by one or more of them to determine if trinational action is warranted. Documents pertaining to this process 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*. In 2001, an evaluation was made of the process, which has been used to review an initial set of priority substances as set forth in Resolution 95-05 to determine if revisions are required to move from a chemical-by-chemical approach to a broader context so as to ensure it continues to reflect the mandate of Resolution 95-05. As a result of this review, consideration will be given to the ability of the process to address classes or clusters of chemicals or industrial sectors, and holistic concerns, such as endocrine disruption or high risk populations such as children or indigenous peoples. Opportunities will be sought to link with other CEC initiatives, such as that on Children’s Health and the Environment in North America.

The implementation phase of each approved NARAP is being guided by a trinational Implementation Task Force. The Substance Selection Task Force (SSTF), oversees the “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Program,” has recommended that a NARAP be developed for lindane, a substance that, while no longer manufactured in North America, remains in use via existing stocks and in public health products (e.g., shampoo to control head lice).

In 2001, a project was launched to develop a NARAP on dioxins and furans, hexachlorobenzene and coplanar PCBs. This NARAP will address a cluster of compounds that are typically formed as unwanted byproducts and released to the environment during the production of certain commercial chemicals or the thermal destruction of household or hazardous wastes. In 2001, with CEC support, a baseline air emissions inventory was prepared for dioxins and furans. This will be linked with the Canadian and US inventories to give an overall North American picture of releases and will assist in setting priorities for action under the NARAP. It is anticipated that work at key junctures of NARAP development will be coordinated with activities of the International Joint Commission (Canada and the United States) and its International Air Quality Advisory Board, as well as Task Force on Monitoring and Assessment. For example, work will commence to set up a dioxin/furan air monitoring network in Mexico through collaboration between the two task forces.

A draft NARAP on monitoring and assessment of persistent toxic substances (PTS) was prepared in 2001. This NARAP will undergo public review and will be finalized in 2002. Since human health and environmental quality are inextricably linked, efforts will be made to ensure that the health monitoring is included as part of the NARAP.

In addition to the development and implementation of NARAPs, an important feature of the SMOC initiative is its capacity-building/leveraging program. Activities under this aspect of the program are intended to assist in generating financial resources from a variety of international agencies to with a view to assisting Mexico in the implementation

of NARAPs and to meet other needs arising from Council Resolution 95-05 on the Sound Management of Chemicals. In 2000, the CEC proposed procedures to enhance coordination of the reviews for identifying and evaluating projects. In 2001, a leveraging strategy was developed to help secure outside resources through consulting firms that have expertise in international capacity building.

Mexico has made great strides in the implementation of the DDT NARAP. As of 2000, they have successfully eliminated the use of DDT—two years ahead of schedule. In 1999, the CEC developed a grant proposal directed to the Global Environmental Facility to assist with implementation of the NARAP on DDT. The Global Environmental Facility funding, as well as assistance provided through the International Development Research Council to develop the proposal to Global Environmental Facility, will help to ensure that the success of the NARAP can be transferred to other countries in the Caribbean, and Central and South America.

The Chlordane Implementation Task Force in 1999 provided its evaluation report of NARAP implementation on this substance. With the cessation of its manufacture, and the use of alternative products, this NARAP has been successfully concluded. A watching brief is anticipated to prevent illicit imports and uses of chlordane.

The PCB Implementation Task Force in 1999 prepared a status review of this NARAP, paying particular attention to the many aspects of the NARAP that are not dependent on the transboundary transport and destruction of unwanted PCB materials. In 2000, the task force successfully facilitated trilateral discussions on stranded shipments of PCBs aimed at addressing these in an expeditious and environmentally sound manner (Actions 5.14 and 5.15). In 2001 is a CEC-sponsored workshop on alternative disposal technologies for PCBs. In 2001, a status report will be prepared with a view to determining whether the commitments and actions in the NARAP have been met.

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 2000, NAFEC funded a project to determine the extent to which mercury switches are used in automobiles and to determine best practices. It is anticipated that future capacity-building initiatives related to the effective implementation of the new NARAPs may be eligible for NAFEC funding.

With the signing of the Stockholm Treaty on Persistent Organic Pollutants, enhanced cooperation is anticipated with UNEP. An MOU has been signed between the CEC and UNEP, identifying North America as one region in a global effort to conduct a regionally based assessment of priorities for persistent toxic substances (PTS). This is a two-year initiative that is intended to provide the Global Environmental Facility with a science-based rationale for assigning priorities for action among and between chemical-related environmental issues, and to determine the extent to which differences in priority exist among regions.

Actions 2002

In 2002, resources will be available to continue to facilitate the implementation of those mercury NARAP actions determined by the CEC Council to be priorities for trilateral action. These include, in 2002:

- a project to institute an air monitoring network for mercury in Mexico that is compatible with those that exist in Canada and the United States;
- a review of national reporting mechanisms used to track the ultimate fate of mercury-containing wastes;
- a public education and awareness campaign regarding the hazards of mercury

As well, the mercury implementation task force will work with the Task Force on Monitoring and Assessment to ensure that the NARAP on monitoring and assessment of persistent toxic substances, to be developed in 2001, incorporates pertinent actions noted in Phase II of the NARAP on mercury.

Overview

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

Project planning and management. The Working Group will be holding two meetings in 2002 and will be providing project updates after each meeting. A five-year strategic plan finalized in 2000 is used by SMOC to guide and assess progress on its activities. The Working Group is also responsible for reviewing the evaluation of the SSTF process and making recommendations on it to the Council. The Working Group will examine existing public consultation processes to determine if improvements can be made to follow and provide input into the work.

Implementation of actions in the NARAP on mercury with facilitation of trinational activities, and tracking of overall progress on domestic implementation to be provided by the Implementation Task Force on mercury. The Implementation Task Force will continue to focus priorities on building capacity in Mexico by assembling a funding proposal for capacity building in the area of education and awareness-raising with health professionals and other opinion leaders. This proposal will be discussed with potential partners and the funds will be sought from international funding institutions. Efforts will continue at establishing a mercury deposition network in Mexico. The recently completed Canadian, Mexican and US inventories of air emissions and of 'hot spots' will be peer reviewed and published as a compendium to give the first-ever picture of mercury sources and releases on a North American scale.

The Substance Selection Task Force of the SMOC Working Group recommended during the eleventh regular meeting of the SMOC Working Group development of a NARAP on lindane. The SMOC Working Group has endorsed this recommendation and has forwarded a request to Council pass a resolution to develop a NARAP. If approved by Council, the development of the NARAP will commence in the second quarter of 2002 and a draft should be ready for public consultation by the end of that year.

Development and implementation of the NARAP on dioxins and furans, and hexachlorobenzene. The task force developed the draft phase I NARAP in 2001 based on advice received during a 2001 expert workshop followed by a public workshop. Finalization and implementation of the phase I NARAP is foreseen for 2002 as preparatory work on a phase two program. It is anticipated that capacity building will be a significant component of the work program given that dioxin and furan analyses are extremely complex and expensive. Efforts will be made to set up air monitoring sites in Mexico to match those existing in Canada and the United States. This NARAP represents the first attempt by SMOC to deal with clusters of chemicals using a sectoral approach.

Development and implementation of a NARAP on monitoring and assessment of persistent toxic substances, as directed by Council in Resolution 99-02. In 2001, a draft NARAP was prepared. It will undergo extensive public and peer review early in 2002 and be submitted for approval for implementation. The NARAP has four key elements, short-term actions to address monitoring needs for mercury and dioxins and furans, medium-term actions to build a North American core group of experts to expand the network, long-terms actions aimed at assembling a comprehensive North American monitoring and assessment network, and a capacity building element aimed at seeking significant financial resources to allow Mexico to establish its own monitoring network and support infrastructure. The latter is expected to require capacity-building funds, either through the capacity-building component of the SMOC program and/or via leveraging of external funds.

Completion of the DDT NARAP is anticipated in 2002, given that Mexico has completed agreed upon actions more quickly than anticipated. However, the capacity building work that has been undertaken under Mexico's leadership with Central America will continue with financial support from the Global Environmental Facility. Periodic progress reports will continue.

The chlordane NARAP was completed in 2001. Periodic progress reports will be made.

The NARAP's are intended to be results oriented. Therefore when all the actions are completed a review will be undertaken to ensure that expectations have been met, a final report will be prepared and NARAP activity will cease. However it is anticipated that there will be circumstances where periodic follow-up may be required. The SMOC Working Group will develop a guidance document to establish the ground rules for terminating NARAP activity.

The Sound Management of Chemicals program examines environmental and human health implications of releases of chemicals on a life cycle basis. Based on recent studies by experts and media reports, there is growing concern about hazardous waste movements across the Canadian-US border. At their meeting in Guadalajara, Council requested that this issue be examined in a North American context. In 2002, assistance will be provided to the Law and Policy Program to identify gaps in current hazardous wastes management policies in North America and recommend solutions.

With the signing of the Stockholm Treaty on Persistent Organic Pollutants, global attention is now being focused on development of strategies to reduce or eliminate the use of the 12 substances identified in the treaty. North America is in a leadership position in that the SMOC program is already in the implementation stage of dealing with many of these substances. UNEP and the Global Environmental Facility have developed a project to undertake a regionally based assessment of persistent toxic substances. The objective of this work is to assist the Global Environmental

Facility in setting funding priorities for the future. For the purposes of the project, the globe has been divided into 12 regions, one of which is North America (Canada, Mexico and the United States). An MOU has been signed between the CEC and UNEP for the CEC to undertake the role of ‘regional coordinator’ for the North American region. In 2002, a report will be completed outlining the North American set of priorities for persistent toxic substances. In addition, a cross section of North American monitoring activities will be provided to UNEP in electronic form in order to help build a global database on persistent toxic substances in the ecosystem. Since there are a number of North American sites where wildlife species are monitored as sentinel indicators of contamination by such substances, a cooperative project will be designed to assemble and interpret these databases.

2002	Estimated Resources Required (C\$)
<p>Action 1: Working Group</p> <p>This action supports the SMOC Working Group’s core functions, including the overall direction and coordination of the SMOC initiative, timely development of analyses and documents, and assessing and reporting on progress under the initiative; this will include two regular meetings, inclusive of governmental and public sessions; regular conference calls to provide oversight and guidance to task forces; regular review of implementation of NARAPs and new NARAP development; reporting to the Alternate Representatives and the Council; and development of products for use in leveraging outside funding for SMOC implementation activities. In addition, public participation on SMOC will be examined and identify and pursue opportunities for enhanced public participation in this area</p>	145,000
<p>Action 2: Task Force Reviews</p> <p>This activity will support of work of the task forces on DDT and PCBs to review and report on the implementation of these NARAPs and prepare final reports if it is determined that the actions have been completed. Consideration will be given to doing a follow-up report on chlordane</p>	30,000

<p>Action 3: Capacity-building Program</p> <p>This activity involves using CEC capacity-building resources to leverage larger funding for implementation of NARAP commitments, for example from the Global Environment Facility or the World Bank. Typically, this activity requires extensive preparation of project proposals and a time-consuming project start-up cycle. This component of SMOC activities will be coordinated with the SMOC Working Group and its task force chairs. In particular, these groups will highlight particularly important NARAP activities requiring additional resources from outside of the CEC. Continuing efforts will also be made at building capacity to address lead pollution in Mexico specifically related to children’s environmental health (Council Resolution 00-10)</p>	<p>234,000</p>
<p>Action 4: Mercury Implementation Task Force</p> <p>This activity involves the coordination of trilateral implementation activities, information exchange, and review of Phase II mercury NARAP implementation activities. This includes funding one or more task force meetings and several conference calls to implement the NARAP and consult with the Working Group. Core activities in this work plan will include: NARAP Action 3a, iv, pertaining to review of national reporting mechanisms used to track the ultimate fate of mercury-containing wastes; NARAP Action 6a, iii, pertaining to public reporting to the Council on progress; NARAP Action 5, pertaining to communications; NARAP Action 4b, regarding coordinating implementation activities with the NARAP on monitoring and assessment of persistent toxic substances (PTS); and other efforts to accelerate NARAP implementation, such as activities associated with elimination of harmful exposures of children to mercury, and a trilateral reporting system to track NARAP implementation at the national level. The recently completed North American inventory of emissions and ‘hot spots’ will be peer reviewed and published</p>	<p>110,000</p>
<p>Action 5: NARAP Development Task Force</p> <p>This activity will include providing support for development of additional NARAPs, if deemed necessary by Council, including facilitating formation of the task force (e.g., terms of reference, work plan development); task force meetings, with input by experts and stakeholders; several conference calls at various stages of NARAP development; an extensive experts/stakeholder consultation meeting; preparation of various drafts of the NARAP; and public consultation and revision of the NARAP based on comments received. These funds will be re-programmed in the event no new NARAPs are indicated</p>	<p>50,000</p>
<p>Action 6: Dioxins and Furans, and Hexachlorobenzene NARAP Development Task Force</p> <p>This activity involves support for completing Phase I NARAP development, initiation of Phase 1 implementation and beginning development of the Phase II NARAP on dioxins and furans, and hexachlorobenzene (i.e., similar to the methodology followed for Phase I and II of the NARAP on mercury). General activities will include support for task force meetings, with input by experts and stakeholders; several conference calls at various stages of NARAP development; an extensive experts/ stakeholder consultation meeting; preparation of various drafts of the NARAP; and public consultation and revision of the NARAP based on comments received. Specific activities will include cooperation with the International Air Quality Advisory Board of the International Joint Commission (Canada and the United States), and support for the peer review and publication of the inventory on dioxins, furans, and hexachlorobenzene</p>	<p>140,000</p>

<p>Action 7: Monitoring and Assessment NARAP Development Task Force</p> <p>This activity involves support for public review phase of the draft NARAP on monitoring and assessment of persistent toxic substances (PTS) and implementation of the approved action plan. General activities will include support for task force meetings with input by experts and stakeholders; several conference calls at various stages of NARAP implementation; an expert/stakeholder consultation meeting to assist in the design of one or more networks for NARAP substances (i.e., DDT, chlordane, PCBs, mercury, dioxins and furans, hexachlorobenzene, lindane and possibly lead); preparation of a capacity building initiative and provision of a progress report. Other elements will include identifying children’s exposure to NARAP substances and a North American gap analysis on family/child environmental health indicators and monitoring parameters as they apply to NARAP substances. Tracking the ultimate fate of NARAP substances and NARAP implementation results will be accomplished largely through existing monitoring networks in the United States and Canada, while in Mexico the focus is anticipated to be on establishing new sites to achieve North American coverage. Comparability of data and data-gathering methodologies will also be a key focus of this effort</p>	<p>140,000</p>
<p>Action 8: Substance Selection Task Force</p> <p>This activity will involve support for one or more meetings of the Substance Selection Task Force and several conference calls. The recently completed review of the substance selection process will lead to revisions in the process. Issues to be considered will include expanding the process to address substances by classes, clusters or sectors, for example to allow for a more holistic consideration of endocrine disrupters. A decision will be taken on lead and other candidate substances will be examined</p>	<p>40,000</p>
<p>Action 9: Hazardous Waste Task Force:</p> <p>Technical and other assistance will be provided to Law and Policy program area staff to assess and address the gaps in the current regimes to manage hazardous wastes in North America. Activities will include participation on conference calls, meetings, workshops, reviewing reports, etc., with a view to identifying issues and elaborating solutions and ensuring that approaches are consistent with Council Resolution 95-05 on the Sound Management of Chemicals.</p> <p>A budget for this work is identified in the Law and Policy program area</p>	<p>40,000</p>
<p>Action 10: Regionally Based Assessment of Persistent Toxic Substances</p> <p>The Secretariat will assume the duties of regional coordinator for North America and will work with SMOC to prepare the 2 key elements specified in the MOU with UNEP: a North American assessment of priorities for persistent toxic substances and an electronic summary database of North American environmental and human health monitoring related to persistent toxic substances. Two conference calls, a meeting, and a workshop are planned as part of this undertaking. Under the terms of the MOU, an additional contribution of US\$15,000 will be provided by UNEP</p>	<p>30,000</p>
<p>Total Resources Required</p>	<p>959,000</p>
<p>Total US\$</p>	<p>619,000</p>

Public Participation

SMOC convenes two annual public meetings and reporting sessions, in addition to public consultation, both at formative stages of NARAP development and during implementation. SMOC-related 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. Representatives of industry, academia, environmental and aboriginal groups are also included as observers on its task forces.

Capacity Building

The SMOC initiative is well into its implementation phase and is therefore integrating a capacity building component into most aspects of the work, particularly in the implementation of NARAPs. Increasingly, emphasis will be on leveraging new or additional funds to assist Mexico in capacity building to support the Sound Management of Chemicals program.

In 2002, the capacity-building efforts will focus on developing and submitting major funding proposals to international financial institutions 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. In addition to the current Global Environmental Facility initiative noted above on DDT, it is anticipated that leveraging of funds be undertaken in support of implementation of the NARAPs on mercury, dioxins/furans, and monitoring and assessment.

Expected Results

Implementation of key actions identified in Phase II of the mercury NARAP will be well underway in 2002. The NARAPs on DDT and PCBs will be examined to determine if actions have been satisfactorily implemented and objectives met. An exception may be for those of an ongoing nature that have been institutionalized within the governments and, possibly, capacity-building efforts pertaining to assessment of alternatives to DDT and chlordane. The NARAPs on dioxins and furans, and hexachlorobenzene; monitoring and assessment will be developed in 2001 with implementation foreseen for 2002. The lindane NARAP will commence development in 2002.

The substance selection process will have undergone evaluation and it is anticipated that revisions, based on SMOC recommendations, will provide direction that continues to place North America in the forefront of coordinated national actions that demonstrate leadership and advance implementation of commitments made under binational and multinational agreements.

The SMOC initiative will seek to address children's environmental health concerns in a proactive manner. This will ensure that SMOC processes and activities are consistent with and take advantage, of the weight of scientific evidence pointing to a need for increased vigilance within North America as regards the effects of substances, such as lead, on children and other high risk populations.

The MOU with UNEP will commence implementation in 2002. This will be an opportunity to showcase the work that SMOC has done to implement global treaties (e.g., POPs) in the North American region. In cooperation with the biodiversity program, work will be undertaken to assemble monitoring data related to the impact of persistent toxic substances on wildlife.

In cooperation with the Law and Policy program area, hazardous waste management policies will be examined on a North American basis to determine if there are opportunities to improve policies and programs to meet North American needs in the context of global and regional efforts.

Expected Partners and/or Participants

This initiative is an inclusive, consensus-building effort 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.

Linkages to other CEC Projects

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 Air Quality Issues Program 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 monitoring and assessment of persistent toxic substances (PTS) is building on marine monitoring efforts in the Gulf of Maine and the Bight of the Californias and is developing close linkages with the projects to be conducted under the Conservation of Biodiversity program, including the mapping of marine and estuarine ecosystems in North America.

Activities will be undertaken with the Law and Policy program area to examine gaps in the North American management regime for hazardous wastes and work to fill those gaps. A joint project with the biodiversity program area is anticipated to pull together a summary of available North American monitoring data on impacts of persistent toxic substances on wildlife. There are various initiatives planned or underway related to lead as a pollutant. Coordination will be undertaken between the children's health program. The pollution prevention program and the SMOC program ensure synergies between these various initiatives. Linkages will also be made between certain NARAPs and the PRTR initiative to determine whether PRTRs can be used as the tracking mechanism for measuring progress under the NARAP. Mercury and dioxins and furans are candidates for analysis in this regard.

Actions 2003–2004

2003, 2004

Action:

The Sound Management of Chemicals initiative has been ongoing 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 2003 and 2004. At this time, it is expected that funding levels will be 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. The CEC will continue with the development and review of NARAPs, as well as the selection of additional substances. A new role that is developing for the CEC relates to the recently signed Stockholm Treaty on Persistent Organic Pollutants. This role is one of acting as the regional implementing bodies for global treaties. The nature of this role is as yet uncertain but it is anticipated that it can be readily integrated into the ongoing SMOC program

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

Project Summary

The CEC's North American PRTR project seeks to increase access to and understanding of the sources and handling of toxic chemicals from industrial activities in North America through:

- publishing an annual report on North American pollutant releases and transfers (*Taking Stock*);
- providing access to comparable data on pollutant releases and transfers in North America through the *Taking Stock* web site;
- promoting enhanced comparability among the national PRTR systems; and
- exploring ways to improve access and enhance understanding of PRTR data in collaboration with stakeholder groups.

The project also contributes to global and regional PRTR-related activities through collaboration with other international organizations.

Goals and Objectives

The goal of the project is to promote public access to information on pollutant releases and transfers in North America in order to enhance understanding of sources and handling of toxic substances, provide an informed basis for stakeholder dialogue and priority-setting, and to foster pollution reduction efforts.

Specific objectives of the project include:

- providing an annual overview and analysis of North American pollutant release and transfer data;
- 'sharpening the picture' of pollutant releases and transfers in North America by fostering efforts to improve the comparability of the data collected by the national PRTR systems;
- undertaking special analyses that make use of PRTR data and other relevant information to gain further insight into pollution-related issues of particular interest in North America;
- enhancing the utility of PRTRs to citizens, communities, industry, government and other interested parties by fostering the use of PRTRs as a tool for priority setting and tracking progress, finding ways to enhance understanding of PRTR data, and exploring opportunities for using PRTR in combination with other data (e.g., health, environmental, demographic, economic) in order to gain further insights into issues of concern;
- providing leadership in the global context, drawing upon North American PRTR-related expertise and experiences.

Rationale

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

Over the past decade there has been a growing interest worldwide in PRTRs and related issues of public access to environmental information. Among the principles and commitments agreed to in *Agenda 21* at the 1992 United Nations Conference on Environment and Development were provisions calling for the development of emissions inventories and programs to promote the public's and workers' right-to-know. The Organization for Economic Cooperation and Development (OECD), of which all three North American countries are members, issued a Council Recommendation in 1996 which calls upon member countries to establish, implement and make public national PRTRs and promote comparability among national PRTRs and sharing of PRTR data between neighboring countries. The Intergovernmental Forum on Chemical Safety (IFCS) has also focused on the topic of PRTRs, including a special session on PRTRs in October 2000. A working group on PRTRs has also been recently formed in

the context of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

North America is well positioned to serve as a global leader in the development and use of PRTRs nationally and regionally. Each of the three North American countries has a national PRTR program. The US program, called the Toxics Release Inventory (TRI), first collected data from facilities for the 1987 reporting year. Facilities began submitting data to the Canadian National Pollutant Release Inventory (NPRI) for the 1993 reporting year. In Mexico, 1997 was the first year of reporting under the voluntary *Registro de Emisiones y Transferencia de Contaminantes* (RETC) program, and in 2001 the government announced its intention to make PRTR reporting mandatory. Through the CEC, the North American countries are breaking new ground by putting together and analyzing the data collected through these national programs on a regional scale, and making that information available to the North American public through the annual *Taking Stock* reports and web site.

PRTRs are an innovative tool that can be used for a variety of purposes. PRTRs track substances that are considered hazardous to human health and/or the environment, and thereby help industry, government and citizens identify priorities for action and assume responsibility for chemical use. For example, many corporations use the data to report on their environmental performance and to identify opportunities for reducing/preventing pollution. Governments can use PRTR data to define and evaluate program priorities. Communities and citizens use PRTR data to gain an understanding of the sources and management of pollutants and as a basis for dialogue with facilities and governments. Activities in the context of the CEC PRTR project aim to promote and expand upon these various uses of PRTRs by various sectors of civil society.

Progress to Date

In July 2001, the CEC published the fifth in the annual series of *Taking Stock* reports on North American pollutant releases and transfers, which featured a new two-volume format as well as data from additional industrial sectors and on transfers to recycling. The *Taking Stock* reports present an overview and analysis of data on pollutant releases and transfers from industrial facilities in North America, based on information collected through the national PRTR programs. To compare data from national PRTRs with different reporting requirements, the CEC relies on selecting the elements they have in common in order to create a matched data set. This matched North American data set is the basis for the information and analyses provided in the *Taking Stock* reports and on the web site. To date, *Taking Stock* includes data from Canada and the United States only; data from Mexico that would be comparable to US and Canadian PRTR data are not yet available.

In developing the *Taking Stock* reports, the CEC uses an extensive consultative process that includes circulation of a discussion document, a public meeting of the trinational multi-stakeholder Consultative Group, receipt of written comments, and the preparation of a response-to-comments document. The CEC PRTR project has benefited greatly from the input and suggestions obtained from representatives of industry, government, NGOs, citizens and researchers through this consultative process. During its public meeting in March 2001, the Consultative Group took part in a roundtable discussion on the opportunities and challenges of PRTR reporting in Mexico with the participation of high-level officials from the Mexican government, and held a special session on uses of PRTR data.

The process of putting together nationally-collected PRTR data on a regional scale highlights some of the differences among the national systems, and thereby serves to identify opportunities for collaboration and enhanced comparability among the national programs. At the Fourth Annual Regular Session of the CEC in June 1997, the Ministers passed Council Resolution 97-04, “Promoting Comparability of Pollutant Release and Transfer Registers (PRTRs),” which commits the three governments to work toward adopting more comparable PRTRs, while recognizing that each country has its own approach to the collection and use of environmental data. In 2001, officials from the three national PRTR programs worked together, with the assistance of the Secretariat, to compile an action plan to enhance the comparability of North American PRTRs. The interactions that take place among the PRTR officials in the context of CEC meetings and activities have also served to facilitate an informal and ongoing exchange of information and experiences among the three national programs.

In June 2000, during its seventh annual regular session in Dallas, Texas, the CEC Council issued Resolution 00-07 on Pollutant Release and Transfer Registers (PRTRs). In this resolution, the Council recognized a set of basic elements that are central to the effectiveness of PRTR systems, reaffirmed its commitment to publish an annual report on pollutant releases and transfers in North America (*Taking Stock*), and agreed to continue its individual and

collective efforts to promote PRTRs, including public access to and use of PRTR data domestically, regionally and internationally.

In July 2001, the CEC launched the *Taking Stock* web site, which provides users with direct access to the matched data sets used in the *Taking Stock* reports through a flexible 'query builder' function. The trilingual site also provides information on PRTRs in North America, presents highlights from the most recent *Taking Stock* report and provides contextual and explanatory information in order to assist users in understanding and using the data.

Actions 2002

Overview

Annual Meeting of Consultative Group for the North American PRTR Project

The annual public meeting of the PRTR Consultative Group will be held in fall 2002, as a forum for stakeholders to provide input into the further development of the *Taking Stock* series, including the report, web site and special feature analyses. The meeting will also be an opportunity for stakeholder groups from throughout North America to share information and discuss a selected PRTR-related topic(s) of interest, for which a discussion paper or other background material will be prepared.

Development and publication of *Taking Stock* reports

In 2002, the *Taking Stock* report on 2000 data will be developed and published, and planning for the 2001 data report will be initiated.

Development and publication of special feature report

In 2002, the CEC will develop and publish a special feature report, complementary to the *Taking Stock* series, on a particular topic of interest. The topic will be selected taking into account input and suggestions from the members of the Consultative Group.

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

In 2002, the CEC will update the data sets in the *Taking Stock* web site, and undertake further developments to the site to improve its usability, taking into account feedback from users.

Facilitating action to enhance the comparability of North American PRTRs

In 2002, the CEC Secretariat will work with the national PRTR programs to identify specific opportunities for increasing the degree of comparability among the national PRTRs, building on the action plan developed in 2001. This work will include contracting the development of issues/options papers on selected topics, the organization of periodic conference calls and one face-to-face meeting among the PRTR program officials, and other activities as appropriate.

Promoting use, access and understanding of PRTR data

The CEC will continue to support the work of the ad hoc group on uses of PRTR data, formed in 2001 under the auspices of the Consultative Group. The results of the work started in 2001 will be completed and disseminated, and depending on level of interest, a second project may be initiated.

Coordination with OECD, international and hemispheric PRTR activities and general outreach

Recognizing the growing interest in PRTRs worldwide and the potential for North America to play a leadership role, the CEC will continue and increase its collaboration with the OECD, relevant UN bodies and other regions and countries. This will include the involvement of the CEC in meetings and activities of the Interorganization Program for the Sound Management of Chemicals (IOMC) PRTR Coordinating Group, as well as participation in other relevant activities such as the PRTR working group meetings organized by the Secretariat of the Aarhus Convention.

2002	Estimated Resources Required (C\$)
Action 1: Annual Meeting of the Consultative Group	55,000
Action 2: <i>Taking Stock</i> data analyses and report development	220,000
• Activity 1: <i>Taking Stock</i> 2000 (Phase II)	95,000
• Activity 2: <i>Taking Stock</i> 2001	125,000
Action 3: Editing, translation, printing and distribution of <i>Taking Stock</i> reports	100,000
Action 4: Special feature report	25,000
Action 5: Operation, updating and further development of the <i>Taking Stock</i> web site	15,000
Action 6: Facilitating action to enhance the comparability of North American PRTRs	22,000
Action 7: Promoting use, access and understanding of PRTR data	30,000
• Activity 1: Activities of ad hoc group	30,000
Action 8: Coordination with OECD, international and hemispheric PRTR activities and general outreach	12,000
Total Resources Required	479,000
Total US\$	309,000

Public Participation

Consultations and collaboration with stakeholder groups—including governments, industry, public interest groups and others—are an essential part of the CEC’s PRTR program. A multi-stakeholder Consultative Group, composed of a broad range of interested groups and individuals from the three countries, has helped to guide the development of the annual *Taking Stock* reports and other aspects of the CEC PRTR program. A number of these individuals and groups have also become directly involved in implementation of project activities.

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

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

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

Capacity Building

Support for the further development and implementation of the Mexican PRTR system has been among the main priorities for the North American PRTR program, with a view to attaining the goal of comparable chemical-specific and facility specific PRTR data for the entire North American region. Activities have focused on increasing the

technical capacities of government and industry related to the reporting and management of PRTR data, raising public awareness of PRTRs and access to information, and supporting relevant activities of community groups. In 2002, the project will seek ways to support the move towards a mandatory reporting system in Mexico as part of the ongoing efforts to enhance comparability of North American PRTRs.

Expected Results

The primary results of the project include the publication of the annual *Taking Stock* reports, special feature analyses and the operation of the *Taking Stock* web site. In addition, the project is expected to foster improvements in the comparability of PRTR data on a continent-wide basis over the medium- and long-term, as a result of the ongoing interactions among the national programmes and efforts to address issues of comparability. The project is also expected to foster and highlight innovative and practical uses of PRTR data by various groups (e.g., industry, NGOs, government, academics), thereby improving the utility and benefits of PRTRs as a tool for environmental management.

Expected Partners and/or Participants

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

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

Linkages to other CEC Projects

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

Responding to interests expressed by members of the PRTR Consultative Group and building on some initial scoping work done under the PRTR project, the CEC's Air Quality program has recently embarked upon the development of a criteria air contaminants inventory for North America. Given the commonalities between the PRTR work and the criteria air contaminants initiative, there will continue to be close coordination and information exchange between these two projects, including the organization of back-to-back public meetings.

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

Actions 2003–2004

Overview

Annual Meeting of Consultative Group for the North American PRTR Project

The annual public meeting of the PRTR Consultative Group will be organized as a forum for obtaining stakeholder input into the further development of the *Taking Stock* series and as an opportunity for information exchange on a selected PRTR-related topic(s) of interest.

Development and publication of *Taking Stock* reports

In 2003, the *Taking Stock* report on 2001 data will be developed and published, and planning for the 2002 data report will be initiated. The development process includes consultations with interested stakeholders in the early stages of report preparation.

Development and publication of special feature reports

In 2003, the CEC will publish the second in the series of special feature reports and commence work on a third report (topics to be determined).

Operation and updating of the *Taking Stock* web site

In 2003, the CEC will update the data sets in the *Taking Stock* web site, and undertake further developments to the site to improve its usability, taking into account feedback from users.

Facilitating action to enhance the comparability of North American PRTRs

In 2003, the CEC Secretariat will continue to work with the national PRTR programs on opportunities for enhancing comparability among the national PRTRs in North America, including publication of an updated action plan.

Promoting use, access and understanding of PRTR data

The CEC will continue to work with the Consultative Group and other relevant partners on ways to increase access to and promote the use and understanding of PRTR data/information in North America. The CEC will coordinate a joint effort among the national PRTR programs to develop chemical fact sheets designed to meet the needs of the non-technical user. A standard template will be developed and the countries will share the work of compiling the information.

Coordination with OECD, international and hemispheric PRTR activities and general outreach

The CEC will continue to collaborate with the OECD, relevant UN bodies and other regions and countries on PRTR-related activities, and will conduct general outreach.

2003
Action 1: Annual Meeting of the Consultative Group
Action 2: <i>Taking Stock</i> data analyses and report development
Action 3: Editing, translation, printing and distribution of <i>Taking Stock</i> reports
Action 4: Special feature report
Action 5: Operation, updating and further development of the <i>Taking Stock</i> web site
Action 6: Facilitating action to enhance the comparability of North American PRTRs
Action 7: Promoting use, access and understanding of PRTR data
Action 8: Coordination with OECD, international and hemispheric PRTR activities and general outreach

The CEC anticipates continuing work in this in 2004 and will continue to explore a means of reporting on a broader set of data on North American releases and transfers.

3.4.1 Capacity Building for Pollution Prevention

Project Summary

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

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

The purpose of this project is to complement and consolidate the initiatives undertaken to date by the CEC, by strengthening ties between the various North American stakeholders involved in pollution prevention, as well as through the consolidation of the Fund for Pollution Prevention (*Fondo de Prevención de la Contaminación—Fiprev*). Created by the CEC, the Mexican Foundation for Innovation and Technology Transfer in Small and Medium-size Industry (*Fundación Mexicana para la Innovación y Transferencia de Tecnología en la Pequeña y Mediana Empresa—Funtec*) and the Confederation of Industry Associations (*Confederación de Cámaras Industriales—Concamin*), Fiprev's purpose is to implement Resolution 96–12 of the CEC Council.

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

Moreover, Fiprev's activities will continue to receive follow-through and support to ensure its long-term self-sufficiency, as well as to promote the participation of North American industrial associations—including the business councils of Canada and the United States as well as Mexico's Concamin)—in the Technical Committee of Fiprev.

Objectives

- Promote the use of pollution prevention techniques and technologies among small and medium-size Mexican industrial establishments and support them in the development of their environmental management capacities.
- Facilitate the application of pollution prevention measures in industry through the timely offering of technical assistance, information and financing for projects of this nature.
- Consolidate the Round Table on Pollution Prevention in Mexico.
- Strengthen the ties and joint and cooperative efforts among the pollution prevention round tables in North America.
- Strive to make Fiprev financially self-sustaining so that it can continue to finance projects to prevent pollutant generation by small and medium-size Mexican industrial establishments.
- Promote mechanisms to increase the Fund's financial resources and link it with the activities of the Round Table on Pollution Prevention in Mexico.

Rationale

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

Progress to Date

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

To counter this situation, the study recommended the following:

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

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

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

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

As of June 2001, 25 loans totaling approximately US\$610,000 have been granted, and 10 more for approximately US\$250,000 have been authorized. Of these financed projects, 18 are in the tanning industry and the others in food, foundries, electroplating, dry cleaning, chemicals and metalwork. Currently, funding requests for many more projects are being studied, primarily in the areas of tanneries and electroplating.

As of April 2001, there has been 100% repayment of financing granted, amounting to around US\$191,000 in capital plus US\$90,500 in interest, as per the schedules of payments. It is estimated that the environmental benefits generated by these 25 projects financed to date have included a saving of nearly 1,500 tons of chemicals not dumped into runoff waters and more than 68,000 cubic meters of water annually. This implies economic savings for the companies of around US\$650,000 each year.

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

Action Plan 2002

The actions to be taken in 2001 are geared toward complementing and consolidating the pollution prevention initiatives that the CEC has taken to date. Cooperation among the North American round table organizations on pollution prevention will continue to be promoted, and the strengthening of the Mexican round table will be supported. Regarding the Mexican roundtable, the diversification of the organization's sources of financing will be

sought, as will the establishment of regional roundtables (including on the United States-Mexico border) and partnerships among the various players in the working groups.

The CEC will work with representatives from federal and state governments, industry and nongovernmental organizations to establish a pollution prevention roundtable for the US-Mexico border area. The initiative will seek to help coordinate, house and locate funding for a number of current activities, including environmental audits and management systems, by-product synergy and hazardous waste management strategies.

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

2002	Estimated Resources Required (C\$)
Action 1: Collaboration among the round tables on pollution prevention in North America	45,000
• Activity 1: Trilateral group on pollution prevention policy in North America	35,000
• Activity 2: Participation of the three round tables in national events, including reporting on country promotion of the EMS guidance.	10,000
Action 2: Support for the consolidation of the Round Table on Pollution Prevention in Mexico	70,000
• Activity 1: Strengthening the Round Table on Pollution Prevention in Mexico	30,000
• Activity 2: Support for the creation of a regional round table on pollution prevention on the United States-Mexico border	40,000
Action 3: Fiprev follow-through	15,000
• Activity 1: Campaign to promote Fiprev among small and medium-size businesses through Funtec and Concamin; sponsor two meetings of the Fiprev Technical Committee, three meetings of the Fiprev Executive Committee and two meetings of the Donors' Committee. The CEC will also seek to obtain contributions to the fund from large corporations and foundations as well as to transfer CEC involvement on Fiprev to the pollution prevention roundtable.	15,000
Total Resources Required	130,000
Total US\$	84,000

Public Participation

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

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 various sectors, including the federal and local governments, academia, bankers and businesspeople.

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

Capacity Building

The project is completely oriented toward capacity building, both in the implementation of pollution prevention measures in small and medium-size businesses as well as through the creation of financial mechanisms to support pollution prevention actions. In addition, a new element is being incorporated at the request of the round tables on pollution prevention in Canada, Mexico and the United States, to modify regional pollution prevention policies in order to promote and facilitate the implementation of these approaches in North American production activities.

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

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

Lastly, the organization of the Round Table on Pollution Prevention is creating and strengthening links that facilitate the flow of information necessary for the promotion and efficient implementation of prevention practices, in addition to creating joint value-added projects.

Expected Results and Benefits

The Round Table on Pollution Prevention will continue to offer an increasingly ample and important forum for promoting the development, implementation and evaluation of efforts aimed at avoiding, eliminating or reducing pollution at the original source in North America, especially in Mexico. It will continue to promote dialogue and exchange of ideas among members of industry, financial institutions, the government, academia and nongovernmental organizations in order to coordinate their efforts more effectively 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 transfer of technology.

The linking of the round tables on pollution prevention of the North American countries offers the opportunity to establish informal discussions on specific themes, ongoing contacts and a mechanism to reach consensus on effective strategies for implementing pollution prevention initiatives in the region. The joint efforts of the three organizations will also lead to a regional approach to policies and strategies in the area, as well as generating consensus on specific areas concerning the effectiveness of such initiatives.

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

- Granting of financing to:
 - 30 additional businesses in 2002,
 - 40 more in 2003 and
 - 60 more in 2004.

These actions are expected to bring the following environmental benefits:

- Reduction of water consumption by:
 - 82,000 cubic meters during 2002,
 - 110,000 cubic meters during 2003 and
 - 164,000 cubic meters during 2004.
- Reduction of waste generation by:
 - 1,800 tons during 2002,

2,400 tons during 2003 and
3,600 tons during 2004.

Expected Partners and Participants

The partners and participants associated with this project belong to the principal organs of Fiprev—either the Executive Committee or the Technical Committee. Representatives of the following institutions participate: Concamin, United States Council for International Business (USCIB), Canadian Council for International Business (CCIB), Funtec, the *Universidad Nacional Autónoma de México*, the *Instituto Politécnico Nacional*, *Nacional Financiera* (Nafin), the National Institute of Ecology (*Instituto Nacional de Ecología*—INE) the National Bank of Foreign Trade (*Banco Nacional de Comercio Exterior*) and the World Environmental Center.

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

The organizations of the round tables on pollution prevention in Canada and the United States also are included.

Linkages with other CEC Projects

- Children’s Health and the Environment in North America
- The North American Pollutant Release and Transfer Register project
- The Sound Management of Chemicals program

2003
Action 1: Collaboration among the round tables on pollution prevention in North America
<ul style="list-style-type: none"> • Activity 1: Participation of the three round tables in national events • Activity 2: To be defined
Action 2: Support for the consolidation of the Round Table on Pollution Prevention in Mexico
<ul style="list-style-type: none"> • Activity 1: Strengthening the Round Table on Pollution Prevention in Mexico

2004
Action 1: Collaboration among the round tables on pollution prevention in North America
<ul style="list-style-type: none"> • Activity 1: Participation of the three round tables in national events • Activity 2: To be defined
Action 2: Support for the consolidation of the Round Table on Pollution Prevention in Mexico

- Activity 1: Strengthening the Round Table on Pollution Prevention in Mexico

Action 3: Expansion of the project to Latin America

3.4.2 Children's Health and the Environment in North America

Project Summary

This project facilitates collaboration among the Parties and with interested stakeholder groups to address environmental threats to children's health, including the effects of toxic substances, impacts of poor air quality and other environmental health issues of common concern. An important focus of the work is to contribute to a better understanding of the interrelationships between environmental quality and the health of children, with a view to providing a foundation for informed decision-making at all levels, including government policy makers, health and environmental professionals, parents and others concerned with the health and well being of North American children and future generations.

Goals and Objectives

The goal of the CEC's involvement in this area is to work with the Parties in developing a long-term cooperative agenda to protect children from environmental threats to their health, with the overall objective of reducing human-caused pressures on children's health.

Specific objectives include:

- involving the Expert Advisory Board, the public and interested stakeholder groups in the development of a North American cooperative agenda for children's health and the environment, and fostering collaborative efforts to implement elements of the agenda;
- focusing in particular on priorities issues identified by Council including asthma and other respiratory diseases, the effects of lead, including lead poisoning, and the effects of exposure to other toxic substances;
- tracking progress through the development and use of a core set of children's environmental health indicators for North America;
- promoting a more integrated look at the interactions between environment and health as a basis for sound decision-making, through better information and by fostering increased interaction between agencies and organizations working on children's health issues and those involved in environmental protection efforts;
- gaining a better understanding of the economic and societal costs of health problems in children that are linked to degraded environmental quality, with a particular focus on asthma and other respiratory diseases and the effects of exposure to lead;
- initiating activities to increase parents' and the public's awareness and education about environmental threats to children's health and ways of preventing exposure to those threats; and
- incorporating the protection of children and other vulnerable groups as an objective within key work areas of the CEC, in particular the sound management of chemicals and air quality programs.

The project will also provide useful groundwork for trilateral efforts to address environmental threats to the health and well being of other vulnerable groups in North America, such as pesticide exposure among migrant workers and their families.

Rationale

The impact of environmental hazards on children's health is receiving increasing attention among scientists, policymakers and the public alike in all three North American countries. In Resolution 00-10, Council recognized that there is a growing body of scientific evidence that children are particularly vulnerable to many environmental contaminants. They endorsed the ideals affirmed in the 1997 Declaration of the Environmental Leaders of the Eight on Children's Environmental Health as well as Chapter 25 of Agenda 21 of the United Nations Conference on Environment and Development.

Ensuring a safe environment for children requires action at all levels: locally, nationally, regionally, and even globally. Given its unique position as a regional body focused on environmental issues, the CEC has the opportunity to play an important role in advancing issues related to children's health and the environment on a North American scale. This CEC project can contribute by: (1) facilitating and promoting the efforts of the broad range of actors that have a role to play in children's health and the environment in North America, (2) developing the North American

cooperative agenda for children's health and the environment, and (3) by undertaking actions within the scope of the CEC work program.

Progress to Date

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

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

Following the June 2000 Council Session, a Trilateral Children's Environmental Health (CEH) Team was formed to advance implementation of Council Resolution 00-10. In 2000-01 the CEH Team coordinated the compilation of inventories of national, bilateral and trilateral activities related to children's health and the environment as a basis for identifying gaps and opportunities for collaboration and for sharing of best practices and lessons learned. The project also provided support for the organization of a successful national workshop on children's health and the environment in Mexico, which was jointly convened by Semarnat and the Ministry of Health and which set the groundwork for a national children's environmental health agenda in Mexico. A trilateral workshop to further develop the North American cooperative agenda on children's health and the environment will be held in November 2001.

At the June 2001 Council Session, the CEC Council issued Resolution 01-04 in which the ministers reiterated their commitment to working together to address environmental threats to children's health, welcomed the role of the Expert Advisory Board in this regard, and adopted terms of reference for the Board. The Council also indicated its interest in building on the children's environmental health initiative in order to address environmental threats to the health of other vulnerable groups, such as the impact of pesticides on the health of migrant workers.

Actions 2002

Overview

Support for Expert Advisory Board

The Expert Advisory Board, which is composed of three highly qualified individuals from each country, has been established for a period of two years to provide advice to Council on matters concerning children's health and the environment. The project will provide for periodic teleconferences and consultant support for the work of the Expert Advisory Board, and at least two meetings in 2002 including the participation of Board members in CEC events related to children's health and the environment.

Reducing children's exposures to lead through pollution prevention in Mexico

The use of lead in certain micro-industries in Mexico has been identified as a priority issue due to concerns about local environmental contamination as well as potential exposures via goods traded in commerce. Lead is a substance that is of particular concern to the health of children. Building upon the results of demonstration projects undertaken in 2001 under the SMOC program, the project will explore the development of a financing program to assist micro-facilities in selected industries to reduce/avoid the use of lead through implementation of pollution prevention measures, and to thereby reduce potential lead exposures among children via the local environment and/or products.

This will include seeking partnerships, leveraging funds from the SMOC capacity building budget, and the possible use of the Fiprev revolving loan mechanism. (For a description of the Fiprev program, see 3.4.1 Capacity Building for Pollution Prevention).

Developing and tracking key indicators of children’s environmental health

Building on work done by the national governments and other institutions, and working in partnership with the health professionals task force of the International Joint Commission and the Pan American Health Organization, the CEC will facilitate the development of a core set of children’s environmental health indicators for North America. Once developed, the indicators will be published on a periodic basis as a means of tracking progress towards the goal of improved protection of children from environmental threats.

Improving the availability, use and comparability of data on the effects of environmental exposures on children's health in North America

Recognizing the importance of good information as a basis for sound decision-making, the CEC will facilitate efforts to improve the availability, use and comparability of data related to children's environmental health. In 2002, this will include facilitating interactions among researchers in the three countries involved in the development of longitudinal cohort studies on children’s exposures to environmental contaminants, building upon work that has been initiated in the United States and Canada. The project will also identify and compile information on the economic implications of health problems in children linked to degraded environmental quality, with a particular focus on estimating the health care and other societal/economic costs of asthma and other respiratory disease and the effects of exposure to lead.

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

Council Resolution 00-01 called for increased sharing of scientific and research information and for the promotion of education and awareness among parents and the general public on environmental threats to children’s health. In 2002 the CEC will continue its efforts to foster information exchange and raise public awareness through targeted outreach efforts, and to form strategic partnerships with other groups and institutions, including international organizations such as the Pan American Health Organization (PAHO) and the World Health Organization (WHO).

2002	Estimated Resources Required (C\$)
Action 1: Support for Expert Advisory Board	40,000
Action 2: Reducing children’s exposures to lead through pollution prevention in Mexico	35,000
Action 3: Developing and tracking key indicators of children’s environmental health	32,000
Action 4: Improving the availability, use and comparability of data on the effects of environmental exposures on children's health in North America	38,000
<ul style="list-style-type: none"> • Activity 1: Facilitating tri-lateral collaboration on longitudinal cohort studies 	8,000
<ul style="list-style-type: none"> • Activity 2: Assessing economic implications of environmental impacts on children's health: asthma/respiratory disease and exposure to lead 	30,000
Action 5: Facilitating scientific information exchange, increasing public awareness, and networking with other institutions	18,000
Total Resources Required	163,000
Total US\$	105,000

Public Participation

In May 2000, the CEC hosted the Symposium on North American Children's Health and the Environment to provide for public input to the initial planning of a project in this area. The Secretariat and the Trilateral Children's Environmental Health Team will continue efforts to ensure public and stakeholder consideration and feedback as the Parties develop and implement the cooperative agenda for children's health and the environment. The Expert Advisory Board also has an important role to play in bringing outside perspectives and expertise into the work of the CEC in this area.

Expected Results

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

Expected Partners and/or Participants

The Council noted that governments, individuals, communities, industry, and nongovernmental environmental and health groups all have important roles to play in addressing children's health issues. In 2002, the Trilateral Children's Environmental Health Team will continue to work with the Secretariat and Expert Advisory Board to explore linkages and partnerships with other groups and institutions, in the context of the cooperative agenda and other project activities.

Linkages to Other CEC Projects

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

- Sound Management of Chemicals (SMOC): incorporation of a children's health perspective into the North American Regional Action Plans on specific toxic substances, in particular the NARAPs on mercury and on monitoring and assessment; collaboration on work aimed at reducing lead use among micro-industries in Mexico through pollution prevention measures;
- Air Quality: assessment of the impacts of degraded air quality at congested border crossings on the health of children and other vulnerable groups;
- Pollution Prevention Capacity Building: collaboration on work aimed at reducing lead use among micro-industries in Mexico through pollution prevention measures.
- Pollutant Release and Transfer Register (PRTR)—special feature on toxic pollutants and children's health to be published in early 2002; tracking of carcinogens and other chemicals of concern through the annual *Taking Stock* series on pollutant releases and transfers from industrial sources.

Actions 2003–2004

Overview

Support for Expert Advisory Board

The project will provide support for the work of the Expert Advisory Board, including meetings, teleconferences, consultant support and the participation of Board members in CEC events related to children's health and the environment.

Reducing children's exposures to lead through pollution prevention in Mexico

In 2003, the CEC will continue implementation of the project aimed at reducing lead use among micro-industries in Mexico through pollution prevention measures, taking into account the results of project activities in 2002. If appropriate, the CEC will continue to seek additional funding partners for this program in order to enable broader participation and a greater impact.

Tracking key indicators of children’s environmental health

The CEC, in collaboration with its partners, will compile and periodically publish a core set of children’s environmental health indicators for North America as a means of tracking progress towards the goal of improved protection of children from environmental threats.

Improving the availability, use and comparability of data on the effects of environmental exposures on children's health in North America

The CEC will continue efforts to improve the availability, use and comparability of data related to children's environmental health, building on activities initiated in 2002.

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

The CEC will continue efforts to raise awareness, facilitate public access to information, foster scientific information exchange and coordinate activities with other relevant groups and institutions.

Assessing progress and further development of the cooperative agenda

In 2004, the CEC will assess progress to date in the implementation of the cooperative agenda on children's health and the environment in North America, and organize a public workshop to review results and obtain stakeholder input on the further development of the cooperative agenda and next steps.

2003
Action 1: Support for Expert Advisory Board
Action 2: Reducing children’s exposures to lead through pollution prevention in Mexico
Action 3: Tracking key indicators of children’s environmental health
Action 4: Improving the availability, use and comparability of data on the effects of environmental exposures on children's health in North America
Action 5: Facilitating scientific information exchange, increasing public awareness, and networking

2004
Action 1: Support for Expert Advisory Board
Action 2: Tracking key indicators of children’s environmental health
Action 3: Improving the availability, use and comparability of data on the effects of environmental exposures on children's health in North America
Action 4: Facilitating scientific information exchange, increasing public awareness, and networking
Action 5: Assessing progress and further development of the cooperative agenda

LAW AND POLICY

Goal

The goal of the Law and Policy program area is to address regional priorities regarding obligations and commitments in NAAEC related to environmental standards, environmental performance and the continued development and improvement of environmental law and policy. Program initiatives monitor and report on regional trends in implementing and enforcing environmental laws and standards, including innovations in regulation, economic instruments and voluntary initiatives. 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 three program initiatives. The first, Environmental Standards and Performance, focuses on NAAEC objectives of strengthening regional cooperation in the development and improvement of environmental laws and regulations. It provides a regional forum for the exchange of information on 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.

The third program, Environmental Policy, examines leading edge policy initiatives in priority areas and shares best practices among public and private actors.

Environmental Standards and Performance

- Comparative Report on Environmental Standards

Enforcement Cooperation

- North American Regional Enforcement Issues
- Enforcement and Compliance Capacity Building
- Enforcement/Compliance Reporting

Environmental Policy

- Closing the Pathways of Aquatic Invasive Species across North America
- Sustainable Use and Conservation of Freshwater in North America

4.1.1 Comparative Report on Environmental Standards

Project Summary

The CEC will complete and disseminate a comparative study of North American laws and policies relating to intensive agriculture practices. In a separate initiative, the CEC will consult with the Parties to carry out the 2001 Council direction regarding a North American approach to the environmentally sound management of hazardous waste and begin work on a comparative study of this issue. These reports will form the basis for identifying a process to identify best practices and develop greater compatibility of environmental technical regulations and standards in the area studied.

Goals and Objectives

The goal of this project is to strengthen cooperation on the development and continued improvement of environmental technical requirements and standards by promoting exchange of information and exploring a process for developing greater compatibility of environmental technical regulations and standards.

The objectives of this project are to:

- prepare a comparative analysis of existing environmental standards in an area of concern for all three NAFTA Parties and
- identify the potential for developing greater compatibility of environmental standards, where appropriate.

Rationale

This project responds to requests from the public that the CEC work on enhancing cooperation in the development of compatible environmental standards as well as promoting a better understanding of standard-setting processes in the three countries. It also fulfills a number of certain NAAEC objectives, which include strengthening cooperation in the development and improvement of environmental laws and regulations, as well as of compatibility of technical standards, including those of the private sector. While NAAEC Article 3 recognizes the right of each of the Parties to establish its own level of domestic environmental protection and environmental development policies and priorities, each Party is also obligated to ensure that its laws and regulations provide for high levels of environmental protection and to strive to continue to improve those laws and regulations. The Council is committed under Article 10(3) to strengthen cooperation on the development and continued improvement of environmental laws and regulations by promoting the exchange of information on criteria and methodologies used in establishing domestic environmental standards and, without reducing levels of environmental protection, by establishing a process for developing greater compatibility of environmental technical regulations, standards and conformity assessment procedures in a manner consistent with NAFTA. The project is also tied to *A Shared Agenda for Action*, which encourages an analysis of trends in each country's performance and information sharing in the area of environmental standards.

The CEC study on intensive agriculture that commenced in 2001 was selected from a list of critical subjects developed during an initial scoping exercise and identified in the last work plan. Surface and ground water pollution from large confined animal facilities has led to increased government and public scrutiny of existing controls for animal wastes. This issue is perceived as a serious environmental and human health threat. The trend towards increased concentration of intensive livestock operations makes an examination of this issue timely in a rapidly evolving regulatory context.

The comparative study to be carried out on the environmentally sound management of hazardous wastes was not only among the subjects identified during the original scoping exercise but also responds to a direction arising out of the 2001 Council session. This work responds to the ongoing concerns of the Parties about the continuing risk of damage to the environment and of harmful effects on human health caused by the environmentally unsound management of hazardous wastes. Sharing regulatory approaches with affected jurisdictions will help diffuse best practices and identify regulatory gaps. Countries have recognized that they need to enhance and strengthen efforts and cooperation for environmentally sound management in recycling, recovery and disposal of hazardous waste.

Actions 2002

Overview

The following describes the activities identified for the year 2002.

2002	Estimated Resources Required (C\$)
Action 1: Environmentally Sound Management of Hazardous Waste	100,000
<ul style="list-style-type: none"> • Activity 1: Identify priority areas of concern for comparative analysis in cooperation with government experts and consultants from each country 	10,000
<ul style="list-style-type: none"> • Activity 2: Prepare a report on the area chosen to analyse existing international obligations, laws, policies and regulations in selected priority areas for the environmentally sound management of hazardous waste and identify possibilities, where appropriate, for a process to develop greater compatibility of standards and technical regulations (includes translation, editing and publication) 	70,000
<ul style="list-style-type: none"> • Activity 3: Work with Sound Management of Chemicals program to identify hazardous waste trade statistics, coordinate with information from the PRTR program 	
<ul style="list-style-type: none"> • Activity 4: Convene a trilateral task force of policy/program experts to examine gaps in legislation/policy and recommend solutions/improvements. This task force will include nongovernmental stakeholders, state and provincial officials and will convene an initial meeting in Montreal 	20,000
<ul style="list-style-type: none"> • Activity 5: Coordinate with task group under EWG regarding further work on 1998 report on tracking and enforcement needs for transboundary movement of hazardous waste. 	
Action 2: Intensive Agriculture Standards	90,000
<ul style="list-style-type: none"> • Activity 1: Finalize comparative report on intensive agriculture standards (including peer review, editing, translation and printing) 	50,000
<ul style="list-style-type: none"> • Activity 2: Convene workshops of selected stakeholders from relevant regions to present the report and share best practices 	40,000
Total Resources Required	190,000
Total US\$	123,000

Public Participation

The hazardous waste project will seek the input of nongovernmental stakeholders on the recommendations of the comparative report in guiding the CEC in follow-up initiatives. Targeted outreach on the intensive agriculture report will involve key continental, local, state, provincial and federal regulatory experts from agriculture, health and environment sectors.

Expected Results

Both comparative studies will produce a clear overview of existing regional standards in these areas. They lay the groundwork for identifying potential for developing greater compatibility of environmental standards within the respective sovereign regulatory frameworks of each NAFTA Party.

Expected Partners and/or Participants

The studies anticipate the collaboration of the appropriate government agencies of each country as well as the necessary experts or centers of excellence both within and outside of government to guide the CEC and the Parties on the recommendations. Both studies will involve consultation with the Enforcement Working Group to the extent that the project deals with enforcement and compliance issues.

Linkages to other CEC Projects

The comparative study on intensive livestock operations picks up on one of the trends identified in project work carried out by the Environment, Economy and Trade program area. The study on hazardous waste builds on a previous CEC project on the transboundary movement of hazardous waste. This later study will also be conducted with input from the Pollutants and Health program area, particularly the PRTR program, which includes hazardous wastes within its reporting requirements.

Actions 2003

2003
Action 1: Environmentally Sound Management of Hazardous Waste
<ul style="list-style-type: none">• Activity 1: Convene workshop of government and other experts to review the findings of the comparative report on the environmentally sound management of hazardous waste
<ul style="list-style-type: none">• Activity 2: Prepare a report to Council on the findings/recommendations arising from the workshop (includes translation, editing and publication)
<ul style="list-style-type: none">• Activity 3: Coordinate with new task group under EWG regarding further work on 1999 report on tracking and enforcement needs for transboundary movement of hazardous waste
Action 2: Intensive Agriculture Standards
<ul style="list-style-type: none">• Activity 1: Convene workshop of government and other experts to review the findings of the comparative report on intensive agriculture standards
<ul style="list-style-type: none">• Activity 2: Prepare a report to Council on the findings/recommendations arising from the workshop (includes translation, editing and publication)

Actions 2004

The actions for this year will depend on the potential for further CEC work, as identified by the workshops convened to review both the hazardous waste report and the report on intensive agriculture standards.

4.2.1 North American Regional Enforcement Issues

Project Summary

The Enforcement Cooperation program provides ongoing support to the North American Working Group on Enforcement and Compliance Cooperation (EWG) in examining issues related to shared enforcement and compliance challenges. In 2002 there will be two areas examined: i) effective enforcement and enhanced compliance in the area of hazardous waste; and ii) tracking and enforcement issues related to the transboundary movement of mercury for processing or final disposal. For the first area, the EWG will work with the Sound Management of Chemicals (SMOC) Mercury Task Force and for the second area, the EWG will establish a new task force of federal, state and provincial agencies to work on recommendations arising out of its 1999 report: “Tracking and Enforcement of Transborder Hazardous Waste Shipments in North America.”

Goals and Objectives

This project supports the EWG in carrying out its mandate to enhance cooperation among the Parties in environmental enforcement and compliance. Over the next two years, the project will:

- Assist the SMOC Mercury Task Force in implementing Phase II of the North American Regional Action Plan for mercury.
- Carry out an enforcement component with respect to the 2001 Council direction on environmentally sound management of hazardous wastes.

Rationale

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

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

Progress to Date

Since 1995, the CEC has provided support for meetings and communications among the members of the EWG, NAWEG and related task groups. 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).

Since 1996, the EWG has identified the need for cooperation in 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 was a Regional Action Plan for: exchanging tracking databases and compliance data; enhanced capacity to gather, utilize and exchange intelligence; improved compatibility in tracking systems; conducting training in intelligence-gathering, regional law and policy, safety, emergency response, and spill response; and improved understanding the nature of the regional illegal trade and the key players involved.

With regard to the mandate to enhance cooperation among environmental enforcement agencies, the Enforcement Cooperation program aims to 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. NAWEG provides advice and assistance to the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. As a regional forum, NAWEG 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 2002

Overview

2002	Estimated Resources Required (C\$)
Action 1: Regional Issues—Transborder Movement of Hazardous Waste	50,000
<ul style="list-style-type: none"> • Activity 1: Form a task force of hazardous waste specialists and hold a meeting in spring 2002 to advise on CEC follow-up to the 1999 needs assessment on transborder movement of hazardous waste 	40,000
<ul style="list-style-type: none"> • Activity 2: Update the needs assessment and carry out a feasibility study of area chosen for follow-up work 	10,000
Action 2: North American Regional Action Plan on Mercury	13,000
<ul style="list-style-type: none"> • Activity 1: Form task force of enforcement experts to advise regarding the transboundary tracking mechanisms for mercury 	3,000
<ul style="list-style-type: none"> • Activity 2: Finalize a study in conjunction with SMOC on the tracking and reporting mechanisms for transboundary mercury shipments 	10,000
Action 3: Regional Enforcement Network	28,000
<ul style="list-style-type: none"> • Activity 1: Organize adjunct meetings of EWG to provide guidance on Enforcement Cooperation program 	15,000
<ul style="list-style-type: none"> • Activity 2: Foster an interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws 	10,000
<ul style="list-style-type: none"> • Activity 3: Further outreach to other regional and international networks; EWG outreach to provincial/state agencies; NAWEG outreach to other agencies (marine, parks, including state/provincial agencies) as well as Interpol and World Customs Organization 	3,000

Total Resources Required		91,000
Total US\$	59,000	

Public Participation

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 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, particularly NAWEG, have spawned a number of joint initiatives directed at enhanced field capacity to track and enforce environmental and wildlife laws. These are discussed more fully under project 4.2.2.

Expected Results

This part of the Enforcement Cooperation program has two aspects: The first is the promotion of regional enforcement cooperation among enforcement agencies. The project will provide continued support to regional networks in furtherance of their mandates for regional cooperation in effective environmental enforcement. These networks provide the forum to develop a North American perspective on enforcement issues of particular relevance internationally and enable the supervision of the work carried out by the various task forces on regional enforcement issues. The North American Wildlife Enforcement Group (NAWEG) has been recognized as the North American regional link to the Interpol Wildlife Crimes Subgroup. Similar linkages have been made with the World Customs Organization (WCO). Both the EWG and the NAWEG participate with other enforcement networks, including the International Network on Environmental Compliance and Enforcement (INECE).

The second aspect concentrates on specific regional enforcement issues. The EWG will bring together North American experts on hazardous waste to update the needs assessment on transboundary movement of hazardous waste and will assist the SMOC Mercury Task Force in the implementation of aspects of Phase II of the mercury NARAP.

Expected Partners and/or Participants

The project will continue to be delivered in partnership with North American environmental and wildlife agencies. 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.

Linkages to other CEC Projects

The work of all CEC projects in the Enforcement Cooperation program is supervised by the EWG. There are ongoing linkages with the Pollutants and Health program, particularly with PRTR and the Phase II Task Force on the North American Regional Action Plan on mercury.

Actions 2003–2004

Overview

2003
Action 1: Regional Issues—Transborder Movement of Hazardous Waste
<ul style="list-style-type: none">• Activity 1: meeting of task force to review feasibility study on implementing recommendations re transborder movement of hazardous waste.
<ul style="list-style-type: none">• Activity 2: report to Council on actions trilateral undertaken
Action 2: North American Regional Action Plan on Mercury
<ul style="list-style-type: none">• Activity 1: hold workshop on results of study regarding the transboundary tracking mechanisms for mercury
<ul style="list-style-type: none">• Activity 2: prepare report to Council on tracking and reporting mechanisms for transboundary mercury shipments
Action 3: Regional Enforcement Network
<ul style="list-style-type: none">• Activity 1: Organize adjunct meetings of EWG to provide guidance on Enforcement Cooperation program
<ul style="list-style-type: none">• Activity 2: Foster an interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws
<ul style="list-style-type: none">• Activity 3: Further outreach to other regional and international networks; EWG outreach to provincial/state agencies; NAWEG outreach to other agencies (marine, parks, including state/provincial agencies) as well as Interpol and World Customs Organization

2004

CEC anticipates continuing work in this area in 2004.

4.2.2 Enforcement and Compliance Capacity Building

Project Summary

This ongoing project supports initiatives to enhance the Parties' respective capacities for effectively enforcing their environmental laws and regulations. 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 project focuses on matters identified by the Parties as priorities.

Under the leadership of NAWEG, the branch dealing with wildlife enforcement 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 deals with enforcement issues associated with pollution control. In 2002 it will carry out follow-up work to its 2001 training for enforcing North American laws and regulations implementing the Montreal Protocol on Substances that Deplete the Ozone Layer.

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; 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.

Recent capacity building for pollution control tracking and enforcement has targeted the illegal trade of ozone-depleting substances (ODSs). All three NAFTA Parties are signatories to the Montreal Protocol on Substances that Deplete the Ozone Layer. Both the United States and Canada have already imposed severe limitations on the

production and importation of many types of ODS and Mexico is seeking to impose similar restrictions on CFC-12 and other ozone-depleting substances. However, some restricted ODSs (such as CFC-12, or “Freon,” which is used as a refrigerant in automobile air conditioners) are still in high demand in North America. As a result, a thriving illegal trade in these substances has developed. Joint training not only builds enforcement capacity but serves as a foundation to build an enforcement network for continuing cooperation and opens the door to future collaboration with UNEP in a broader network involving Central and South American countries.

In 2002, the CEC will sponsor a training session on mutual legal assistance mechanisms for enforcement actions. There are bilateral agreements on extradition and mutual legal assistance between the United States and Mexico, the United States and Canada and Canada and Mexico. These agreements were entered into in order to assist law enforcement personnel, particularly criminal investigators and prosecutors, in enforcing domestic law. In some areas of law enforcement, these agreements have proven to be useful tools. Unfortunately, many involved in the enforcement of environmental and natural resources laws have, because of a lack of exposure and experience, been unable to take advantage of these laws. To address this shortcoming, the CEC will sponsor a conference of environmental enforcement officials from the three countries to discuss the use of mutual legal assistance mechanisms as tools for improving the enforcement of each Party’s domestic environmental and natural resources laws. Opportunities will be explored to work in conjunction with existing training networks for enforcement agencies in North America.

Progress to Date

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

1. Wildlife Enforcement

a) CITES tracking and enforcement

Since 1995, five regional training programs have been delivered to enforcement officials on critical areas of trade in endangered species of birds, furbearing mammals, reptiles, coral and marine invertebrates and trophy species. These sessions allow wildlife 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.

b) Wildlife forensics

In 1997, the CEC, in cooperation with NAWEG, the US National Fish and Wildlife Forensics Laboratory, and the *Universidad Nacional Autónoma de México*, sponsored a seminar for enforcement officials and forensics authorities of the three countries on forensic techniques, DNA identification techniques, crime scene investigation, necropsy issues, species identification and medicinal trade issues. In 1999, the CEC, in cooperation with NAWEG and the Northwest Association of Forensic Scientists, sponsored a series of workshops on new techniques and developments in forensics. NAWEG, with funding from the CEC, developed a directory of North American forensics experts, which will help rationalize and better share expertise in this area among all three Parties. In addition, two information brochures on forensic techniques were published and distributed to wildlife enforcement officials in the three countries.

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 priority area identified for enforcement capacity building is the tracking and enforcement of pollution control laws. A major effort centered on producing a needs assessment report for the tracking and enforcement of transborder hazardous waste shipments in North America. At a subsequent meeting of hazardous waste officials from the three countries, the group discussed a regional action plan for exchanging tracking databases and compliance data; enhanced capacity to gather, utilize and exchange intelligence; improved compatibility in tracking

systems; conducting training in intelligence-gathering, regional law and policy, safety, emergency response, and spill response; and improved understanding the nature of the regional illegal trade and the key players involved.

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, including most recently in Phase II of the mercury Regional Action Plan. EWG participation in the development stage of the action plan ensures that compliance strategies are considered at the front end.

Actions 2002

Overview

2002	Estimated Resources Required (C\$)
Action 1: Help build wildlife and CITES tracking and enforcement capacity	87,000
• Activity 1: Organize and hold a workshop on enforcement issues regarding trade and illegal harvest of protected plant species	60,000
• Activity 2: Offer ongoing support to wildlife enforcement training network and partnership;	10,000
• Activity 3: Collaborate on CEC projects on priority ecoregions and invasive species	3,000
• Activity 4: Commence planning for 2003 training seminar on invasive species	4,000
• Activity 5: Follow up work for the 2001 seminar on public participation in wildlife enforcement activities	8,000
• Activity 6: Support 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	2,000
Action 2: Help build pollution control tracking and enforcement capacity	30,000
• Activity 1: follow-up to 2001 training workshop on ODS enforcement issues for enforcement and customs officers	12,000
• Activity 2: Sponsor seminar on mutual legal assistance mechanisms	15,000
• Activity 3: Support the Sound Management of Chemicals action plans on implementation/compliance issues	3,000
Total Resources Required	117,000
Total US\$	75,000

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 NAAEC Article 6 to extend prescribed opportunities for the public to participate in enforcement processes of the respective Parties. To the extent

possible, industry is invited to give the industry perspective on enforcement issues in regional training offered in the NAWEG seminars. Appropriate follow-up is being considered to the 2001 dialogue between the NAWEG and the public on the issue of priorities and alternative strategies for improved wildlife enforcement. For example, the CEC in 2000 created a web page for NAWEG to provide easier access to the public to its activities and publications.

Expected Results

Support for capacity building for effective environmental enforcement and compliance reinforces ongoing efforts by each Party. 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 future 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) enforcement and compliance aspects of the Sound Management of Chemicals' North American Regional Action Plans, particularly the Mercury Action Plan, (2) follow-up to the training in Mexico on enforcement issues related to ozone-depleting substances, and (3) training on use of mutual legal assistance and extradition agreements.

1. Wildlife Enforcement

Future priorities for joint activity in this area include:

- ongoing 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;
- joint production of training materials on field-level techniques for tracking and responding to CITES violations;
- follow-up to the 2001 joint seminar on public participation in wildlife enforcement activities;
- joint consultation in enforcement protocols, for example, for the return of confiscated wildlife and the sharing of real-time or historical information;
- delivery of a joint training seminar on enforcement issues relating to the trade and illegal harvest of protected plant species; and
- consultation with relevant NGOs and institutions 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:

- follow-up to training given in Mexico City in 2001 on enforcement issues related to ozone-depleting substances;
- participation in the Sound Management of Chemicals initiative to contribute enforcement and compliance expertise to the strategies and action plans, particularly with respect to the mercury Regional Action Plan, Phase II;
- exploration of enhanced opportunities for effective involvement of the public in enforcement processes; and
- training to enhance use of mutual legal assistance and extradition agreements in prosecuting environmental crime.

Expected Partners and/or Participants

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 NAAEC Article 6 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 these capacity-building initiatives will require enhanced interaction among the various related working groups and projects in CEC, including:

- the Sound Management of Chemicals (SMOC) initiative;
- the North American Bird Conservation Initiative within the North American Biodiversity Conservation Mechanisms project; and
- work in the North American Biodiversity Conservation Strategies program on priority ecoregions.

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. In particular, in response to a request for assistance with aspects of Phase II of the mercury North American Regional Action Plan, the EWG will work on a joint project on tracking and enforcement of transboundary movement of mercury for processing or disposal. NAWEG representatives participated in the planning for the 2001 workshop on invasive species organized by the Conservation of Biodiversity program and will pursue this collaboration in their own initiative on invasive species in 2003.

Actions 2003

Overview

2003
Action 1: Help build wildlife and CITES tracking and enforcement capacity
<ul style="list-style-type: none"> • Activity 1: Organize and present a training seminar on enforcement issues relating to invasive species
<ul style="list-style-type: none"> • Activity 2: Offer ongoing support to wildlife enforcement training network and partnership
<ul style="list-style-type: none"> • Activity 3: Collaborate on CEC project on priority ecosystem regions
<ul style="list-style-type: none"> • Activity 4: Follow up seminar on enforcement issues for endangered plant species by publication of information bulletins
<ul style="list-style-type: none"> • Activity 5: Support networking and outreach to other agencies to identify priorities for joint capacity-building initiatives and to explore potential sources of support
<ul style="list-style-type: none"> • Activity 6: Plan for 2004 seminar on enforcement technology tools and for 2005 seminar intelligence data collection and analysis
Action 2: Help build pollution control tracking and enforcement capacity
<ul style="list-style-type: none"> • Activity 1: Participate in Sound Management of Chemicals initiative to identify alternatives for improved control through enhanced compliance (specific action plans for priority chemicals)
<ul style="list-style-type: none"> • Activity 2: Follow up to seminar on mutual legal assistance

Actions 2004

The CEC anticipates continuing work in this area in 2004.

4.2.3 Enforcement/Compliance Reporting

Project Summary

The Enforcement Working Group has since 1995 prepared the enforcement section of CEC's annual report. This reporting function was enhanced in 2000 with the preparation of a special enforcement report, which focused on three enforcement topics: inspections, compliance promotion, and results measurement. This project was undertaken in response to public demand for more in-depth information on the Parties' enforcement and compliance promotion activities. In subsequent years, the CEC will issue a comparative enforcement report on a selected topic. The collaboration of the EWG will be an important aspect in obtaining timely and accurate information.

Goals and Objectives

The goal of this project is to provide the public on an annual basis with information on selected areas of enforcement and compliance promotion activities in North America.

Rationale

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

Progress to Date

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

Actions 2002

Overview

2002	Estimated Resources Required (C\$)
Action 1: CEC will prepare, edit, translate and publish a report on an enforcement and compliance promotion topic	60,000
Action 2: Coordinate the preparation of the enforcement section to the CEC annual report	0
Action 3: Promote public outreach through (a) consultations with JPAC, NACs and other groups; (b) contribution to the CEC electronic newsletter, <i>Trio</i>; (c) distribution of related reports to public	5,000
Total Resources Required	65,000
Total US\$	42,000

Public Participation

Improving outreach to the public is a major challenge for all enforcement agencies. To date, the EWG and NAWEG have initiated consultations with JPAC and have sponsored, with JPAC, a seminar on public participation in enforcement activities. Brochures on NAWEG have been published and distributed, providing updates on the membership, priorities and activities of this regional enforcement network. All program reports and bulletins are available in hard copy and on the CEC homepage.

Expected Results

This project will produce an informative report on an annual basis on specific topics in the area of environmental law enforcement and compliance promotion. This responds to public demand for more transparency in this area.

Expected Partners and/or Participants

The collaboration of the EWG and the enforcement agencies in each country is an important factor in obtaining timely and accurate information

Linkages to other CEC Projects

There will be an attempt to link topics chosen for the enforcement reports with work in other CEC program areas such as priority ecoregions, or Sound Management of Chemicals, or else with past work of the Enforcement Cooperation program.

Actions 2003–2004

The CEC anticipates continuing work in this area after 2002.

4.2.4 Closing the Pathways of Aquatic Invasive Species across North America

Project Summary

This project seeks to protect marine and aquatic ecosystems from the effects of aquatic invasive species. The initiative will assist the North American countries to 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.

Goals and Objectives

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, multinational, multilingual prevention and control programs tailored to the unique needs of North American aquatic ecoregions.

Rationale

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 have 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 Puget Sound/Georgia Strait region.

Progress to Date

On 28–30 March 2001, in Montreal, Quebec, the CEC convened the first North American workshop to identify cooperative opportunities on “Preventing the Introduction and Spread of Aquatic Invasive Species in North America.” This workshop primarily addressed intentional introductions, aquaculture and live bait, and benefited from the participation of experts and decision-makers from government agencies, industry, NGOs and academia.

From the results of this workshop the CEC recommends five priority areas for cooperation in North America on invasive species:

- Develop a North American Invasive Species Information Network and create a North American hub for the Global Invasive Species Information Network (GISP);
- Create a regional directory of legal and institutional frameworks relevant to the prevention and control of invasive species. This directory will cover both regulatory and voluntary measures (e.g., codes of conduct), and include a list of invasive species already regulated by one of more of the three countries;
- Identify invasive species and invasion pathways that are a concern of two or more countries and determine priorities for bi- or tri-lateral cooperation;
- Develop and distribute tools for raising awareness of the issue and empowering policy makers, environmental educators, science writers, resource managers, and other audiences to address it ; and
- Identify tools to provide economic incentives to industries and other private stakeholders that voluntarily take actions to prevent the introduction and minimize the spread of invasive species.

A trilateral approach to the prevention and control of invasive species could enable all three countries to make the issue a significant priority, develop mutually supportive legal and policy frameworks, share information and technical capacity, and use limited resources efficiently. Through trilateral cooperation, the region could address current problems and develop strategies to prevent new ones in a timelier manner.

During the year 2001, the *ad hoc* working group agreed on the first actions towards implementation, and the proceedings from the workshop were published in collaboration with NOAA.

Actions 2002

Overview

Work will continue on the development of priority actions. The CEC will constitute an important forum for the Parties to identify priority species and coordinate responses, including supportive legal and policy frameworks for addressing invasive species.

2002	Estimated Resources Required (C\$)
Action 1: Development of cooperative strategy to address North American Priority Invasive Species, Pathways and Vectors	60,000

Total Resources Required	60,000
Total US\$	39,000

Public Participation

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

Capacity Building

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

The Aquatic Invasive Species project will produce a series of results based on the priorities identified in the workshop, ranging from reports outlining gaps in regional prevention and control capabilities, increased access to ecologically critical information, and, most importantly, reduced risks of future invasions by alien species. Information supporting and/or arising from this effort will be made available through the North American Gateway for Marine Conservation.

Expected Partners and/or Participants

The Aquatic Invasive Species project will involve natural resource agencies, academics and the public in all three countries. The project complements many ongoing projects of the Aquatic Nuisance Species Task Force and its member agencies within the United States, and of the International Joint Commission (IJC). Preliminary discussions have been and will continue to be initiated among other potential partners, including IUCN.

Linkages to other CEC Projects

Along with being an enabling tool for ecoregional conservation, the Aquatic Invasive Species project complements and supports the following ongoing CEC projects and programs:

- North American Biodiversity Information Network and, in particular, NABIN’s collaborative initiative with the Inter-American Biodiversity Information Network (IABIN) on invasive species;
- the Environment, Economy and Trade program; and, in particular,
- the Conservation of Biodiversity program.

Actions 2003

2003
Action 1: Development of cooperative strategy to address North American Priority Invasive Species, Pathways and Vectors

4.2.5 Sustainable Use and Conservation of Freshwater in North America

Project Summary

At the eighth Regular Session of Council, held in Guadalajara in June 2001, Council members agreed to initiate work in the area of sustainable watershed management in the region, including consideration of affordable water-related technologies and water pricing. To define opportunities in this area, the CEC will hold a series of small workshops with water policy experts to develop recommendations for Council on future work.

Additionally, the CEC will employ the OECD-developed key environmental indicators as part of its State of the North American Environment report to, among other things, examine freshwater resources. In 2002, the CEC will provide additional information pertaining to the indicators relevant to freshwater resources by preparing a special chapter summarizing key issues relating to the sustainable use and conservation of freshwater in North America.

Progress to Date

A group of water experts have prepared a report for the CEC entitled *North American Boundary and Transboundary Inland Water Management Report*, examining the legal regimes addressing transboundary and boundary water on the US-Canadian and US-Mexican borders. The report also identified the major water quality and quantity issues facing each watershed, along with the listing of key policy options for consideration in the region. The report is scheduled for publication in fall of 2001.

Actions 2002

Overview

2002		Estimated Resources Required (C\$)
Action 1: Sustainable Use and Conservation of Freshwater in North America		85,000
<ul style="list-style-type: none"> Activity 1: Develop regional information derived from OECD water indicator data as part of the CEC State of the Environment report, and prepare special chapter on North America freshwater resources (funded in SOUN) 		
<ul style="list-style-type: none"> Activity 2: Convene a series of small workshops with leading water policy experts from government, academia, industry and nongovernmental organizations, to identify key policy options for sustainable watershed management, including consideration of affordable technologies and pricing 		85,000
Total Resources Required		85,000
Total US\$	55,000	

Expected Results

The North American water policy working group will provide recommendations for concrete action to promote the sustainable use and conservation of freshwater in the region. Future work will be based on those options that Council identifies for continuing CEC efforts in this area.

Expected Partners and/or Participants

Public Participation

Linkages to other CEC Projects

Actions 2003–2004

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

2002	Estimated Resources Required (C\$)
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 "NACEC Information Center")	245,000
Cooperating with the NAFTA Free Trade Commission, as specified by Article 10(6)	30,000
Transboundary environmental impact assessment under Article 10(7)	20,000
Preparing the program plan and budget as called for in Article 11(6)	60,000
Preparing the annual report as called for by Article 12(1)	30,000
Preparing the State of the Environment report as mandated by Article 12(3), including more detailed regional focus on OECD's key environmental indicators and a special chapter on freshwater resources in North America	100,000
Developing such reports as the Secretariat deems appropriate under Article 13 of NAAEC and processing citizen submissions and the development of factual records pursuant to Articles 14 and 15 of NAAEC	712,000
Total Resources Required	1,197,000
Total US\$	772,000

North American Fund for Environmental Cooperation (NAFEC)

In 2002–2004, 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;
- issue a focused Call for Proposals linked to one or more CEC projects and link the results of NAFEC-supported projects to other components of the CEC’s work program;
- emphasize public participation within CEC processes and others of regional relevance; and
- broadly disseminate information about NAFEC and NAFEC-supported projects and continue to strengthen the networking and information exchange function of NAFEC.

During 2002, NAFEC will again operate with a reduced budget. Approximately, US\$400,000 will be available for grants to community-based projects. The CEC will again focus the NAFEC Call for Proposals on a specific program area or areas (to be identified before the end of 2001). The 2002 Call for Proposals will be released in early 2002 with a deadline in April. The CEC will also continue to explore alternatives for additional funding. Such efforts will include both collaboration with other funders as well as developing innovative mechanisms for financing environmental initiatives.

2001		Estimated Resources Required (C\$)
Total Resources Required		\$755,000
Total US\$	487,000	

The Joint Public Advisory Committee (JPAC)

For JPAC members approval

The Joint Public Advisory Committee (JPAC) is one of the constituent bodies of the CEC, along with the Council and the Secretariat. As a group of fifteen volunteer citizens, five from each country, JPAC recognizes that in one respect it functions as a microcosm of the public: independent individuals who contribute diverse institutional experience and cultural perspectives. JPAC may provide advice to the Council on any matters within the scope of the NAAEC. In another respect, as it represents the North American community-at-large (not one country in particular), one of its important obligations is to ensure that public input and concerns are taken into account when formulating its advice to Council.

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

Public Access to Environmental Information

A JPAC priority in 2002 will be to focus on public access to government-held environmental information, a mandate issued by Council at its Regular Session in June 2001. The purpose will be to provide advice to Council on how the previous work of the Secretariat on this issue can be made more current and respond to Council's interest in improving transparency and public participation. JPAC will organize public consultations early in 2002 with a view to providing an advice for the June 2002 Regular Session of Council.

Articles 14 and 15 of the NAAEC

JPAC will participate in the implementation of Council Resolution 00-09 on matters related to Articles 14 and 15 of the Agreement to provide an advice to Council on this issue. It is expected that JPAC will review the progress made in relation to the conclusions stated in its report provide to Council in June 2001 on the lessons learned in the Articles 14 and 15 submissions process under the North American Agreement on Environmental Cooperation (NAAEC) and by which new issues can be re-examined.

CEC Program

In addition, JPAC will participate, throughout the year, in CEC public meetings and be prepared to initiate new advice to Council as the need arises.

Administrative Matters

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

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

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

Proposed Program Plan and Budget: 2002–2004
Other Initiatives of the CEC

2002		Estimated Resources Required (C\$)
Total Resources Required		400,000 *
Total US\$	258,000	

* This budget forecast excludes the expenses that could be incurred following a future decision by Council to entrust specific additional mandates to JPAC.

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 \$100,000 and funds for projects not exceeding \$10,000;
- specific obligations under NAAEC;
- a portion of rent (85 percent);
- costs of Council Sessions, JPAC meetings and public meetings;
- telecommunication costs;
- executive management, including costs for the Mexico liaison office; and
- planning and evaluation costs.

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.

2002 Project Budget Summary

I – ENVIRONMENT, ECONOMY AND TRADE

<i>1.1.1</i>	<i>Assessing the North American Environment in the context of North American market integration</i>	
	Cooperative and partnership agreements, professional fees	145,000
	Travel, accommodation, interpretation and meetings expenses	190,000
	Translation, publication and distribution costs	30,000
	Other expenses	-
	Equipment purchase (if applicable)	-
	Total:	365,000
<i>1.2.1</i>	<i>Identifying Market-Mechanisms in Support of Environmental Protection and Conservation</i>	
	Cooperative and partnership agreements, professional fees	80,000
	Travel, accommodation, interpretation and meetings expenses	110,000
	Translation, publication and distribution costs	55,000
	Other expenses	-
	Equipment purchase (if applicable)	-
	Total:	245,000
<i>1.2.2</i>	<i>Financing and the Environment: Climate Change and Energy</i>	
	Cooperative and partnership agreements, professional fees	260,000
	Travel, accommodation, interpretation and meetings expenses	60,000
	Translation, publication and distribution costs	10,000
	Other expenses	-
	Equipment purchase (if applicable)	-
	Total:	330,000

II – CONSERVATION OF BIODIVERSITY

2.1.1	<i>Strategic and Cooperative Action for the Conservation of Biodiversity in North America</i>	
	Cooperative and partnership agreements, professional fees	3,000
	Travel, accommodation, interpretation and meetings expenses	20,000
	Translation, publication and distribution costs	-
	Other expenses	2,000
	Equipment purchase (if applicable)	-
	Total:	25,000
2.1.2	<i>North American Bird Conservation Initiative</i>	
	Cooperative and partnership agreements, professional fees	195,000
	Travel, accommodation, interpretation and meetings expenses	45,000
	Translation, publication and distribution costs	-
	Other expenses	-
	Equipment purchase (if applicable)	-
	Total:	240,000
2.1.3	<i>Species of Common Conservation Concern</i>	
	Cooperative and partnership agreements, professional fees	60,000
	Travel, accommodation, interpretation and meetings expenses	40,000
	Translation, publication and distribution costs	10,000
	Other expenses	-
	Equipment purchase (if applicable)	-
	Total:	110,000
2.1.4	<i>Mapping Marine and Estuarine Ecosystems of North America</i>	
	Cooperative and partnership agreements, professional fees	60,000
	Travel, accommodation, interpretation and meetings expenses	5,000
	Translation, publication and distribution costs	70,000
	Other expenses	5,000
	Equipment purchase (if applicable)	-
	Total:	140,000
2.1.5	<i>North American Marine Protected Areas Network</i>	
	Cooperative and partnership agreements, professional fees	110,000
	Travel, accommodation, interpretation and meetings expenses	95,000
	Translation, publication and distribution costs	30,000
	Other expenses	5,000
	Equipment purchase (if applicable)	-
	Total:	240,000

Proposed Program Plan and Budget: 2002–2004
2002 Project Budget Summary

<i>2.1.6 North American Biodiversity Information Network</i>		
Cooperative and partnership agreements, professional fees		80,000
Travel, accommodation, interpretation and meetings expenses		40,000
Translation, publication and distribution costs		10,000
Other expenses		-
Equipment purchase (if applicable)		-
Total:		130,000
 III – POLLUTANTS AND HEALTH		
<i>3.1.1 Facilitating Trinational Coordination in Air Quality Management</i>		
Cooperative and partnership agreements, professional fees		55,000
Travel, accommodation, interpretation and meetings expenses		80,000
Translation, publication and distribution costs		45,000
Other expenses		-
Equipment purchase (if applicable)		-
Total:		180,000
 <i>3.1.2 Developing Technical and Strategic Tools for Improved Air Quality in North America</i>		
Cooperative and partnership agreements, professional fees		135,000
Travel, accommodation, interpretation and meetings expenses		65,000
Translation, publication and distribution costs		45,000
Other expenses		-
Equipment purchase (if applicable)		-
Total:		245,000
 <i>3.1.3 Trinational Air Quality Improvement Initiative: North American Trade and Transportation Corridors</i>		
Cooperative and partnership agreements, professional fees		115,000
Travel, accommodation, interpretation and meetings expenses		65,000
Translation, publication and distribution costs		15,000
Other expenses		-
Equipment purchase (if applicable)		-
Total:		195,000
 <i>3.2.1 Sound Management of Chemicals</i>		
Cooperative and partnership agreements, professional fees		500,000
Travel, accommodation, interpretation and meetings expenses		359,000
Translation, publication and distribution costs		100,000
Other expenses		-
Equipment purchase (if applicable)		-
Total:		959,000

Proposed Program Plan and Budget: 2002–2004
2002 Project Budget Summary

<i>3.3.1 North American Pollutant Release and Transfer Register</i>		
Cooperative and partnership agreements, professional fees		273,000
Travel, accommodation, interpretation and meetings expenses		67,000
Translation, publication and distribution costs		131,000
Other expenses		8,000
Equipment purchase (if applicable)		-
	Total:	479,000
<i>3.4.1 Capacity Building for Pollution Prevention</i>		
Cooperative and partnership agreements, professional fees		65,000
Travel, accommodation, interpretation and meetings expenses		50,000
Translation, publication and distribution costs		10,000
Other expenses		5,000
Equipment purchase (if applicable)		-
	Total:	130,000
<i>3.4.2 Children's Health and the Environment in North America</i>		
Cooperative and partnership agreements, professional fees		88,000
Travel, accommodation, interpretation and meetings expenses		50,000
Translation, publication and distribution costs		23,000
Other expenses		2,000
Equipment purchase (if applicable)		-
	Total:	163,000

IV – LAW AND POLICY

<i>4.1.1 Comparative Report on Environmental Standards</i>		
Cooperative and partnership agreements, professional fees		80,000
Travel, accommodation, interpretation and meetings expenses		60,000
Translation, publication and distribution costs		50,000
Other expenses		-
Equipment purchase (if applicable)		-
	Total:	190,000
<i>4.2.1 North American Regional Enforcement Forum</i>		
<i>Transborder Movement of Hazardous Waste</i>		
Cooperative and partnership agreements, professional fees		10,000
Travel, accommodation, interpretation and meetings expenses		40,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Subtotal:	50,000

Proposed Program Plan and Budget: 2002–2004
2002 Project Budget Summary

<i>North American Regional Action Plan on Mercury</i>		
Cooperative and partnership agreements, professional fees		10,000
Travel, accommodation, interpretation and meetings expenses		3,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Subtotal:	13,000
<i>Regional Enforcement Network</i>		
Cooperative and partnership agreements, professional fees		3,000
Travel, accommodation, interpretation and meetings expenses		25,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Subtotal:	28,000
	Total	91,000
4.2.2 Enforcement and Compliance Capacity Building		
<u>Wildlife and CITES tracking and enforcement capacity—</u>		
Cooperative and partnership agreements, professional fees		7,000
Travel, accommodation, interpretation and meetings expenses		80,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Subtotal:	87,000
<u>Pollution Control Tracking and Enforcement Capacity</u>		
Cooperative and partnership agreements, professional fees		3,000
Travel, accommodation, interpretation and meetings expenses		27,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Subtotal:	30,000
	Total	117,000
4.2.3 Enforcement/Compliance Reporting		
Cooperative and partnership agreements, professional fees		60,000
Travel, accommodation, interpretation and meetings expenses		5,000
Translation, publication and distribution costs		-
Other expenses		-
Equipment purchase (if applicable)		-
	Total:	65,000

Proposed Program Plan and Budget: 2002–2004
2002 Project Budget Summary

<i>4.2.4 Closing the Pathways of Aquatic Invasive Species across North America</i>		
Cooperative and partnership agreements, professional fees		30,000
Travel, accommodation, interpretation and meetings expenses		15,000
Translation, publication and distribution costs		15,000
Other expenses		
Equipment purchase (if applicable)		
	Total:	60,000
<i>4.2.5 Sustainable Use and Conservation of Freshwater in North America</i>		
Cooperative and partnership agreements, professional fees		30,000
Travel, accommodation, interpretation and meetings expenses		40,000
Translation, publication and distribution costs		15,000
Other expenses		
Equipment purchase (if applicable)		
	Total:	85,000

General

	2002
1 - 4. Program	4,784,000
1. - Environment, Economy and Trade	940,000
2. - Conservation of Biodiversity	870,000
3. - Pollutants and Health	2,351,000
4. - Law and Policy	623,000
7. Program support	6,205,000
7.1 Salaries	3,826,000
7.2 Telecommunications	89,000
7.3 Rent	660,000
7.4 Operating equipment	170,000
7.5 Office supplies	140,000
7.6 Relocation and orientation	115,000
7.7 Executive Management	424,000
7.7.1 Office of the Executive Director	190,000
7.7.2 Program Directorate	30,000
7.7.3 Communications Directorate	30,000
7.7.4 Mexico Liaison Office	174,000
7.8 Public outreach	435,000
7.9 Planning and Evaluation	156,000
7.10 Contingency fund	190,000
7.10.1 Unforeseen needs	152,000
7.10.2 Reserve for reimbursement of Quebec taxes	38,000
7.10.3 Reserve for currency fluctuations	0
8. Other initiatives	2,649,000
8.1 SOUN	1,197,000
8.2 NAFEC	755,000
8.3 Council	297,000
8.4 JPAC	400,000
Grand total for program-related costs	13,638,000
9. Administration and finance	1,108,000
9.1 Salaries	666,000
9.2 Telecommunications	12,000
9.3 Rent	90,000
9.4 Operating equipment	15,000
9.5 Office supplies	16,000
9.6 Relocation and orientation	22,000
9.7 External administrative support	287,000
Total Expenses	14,746,000

Summary

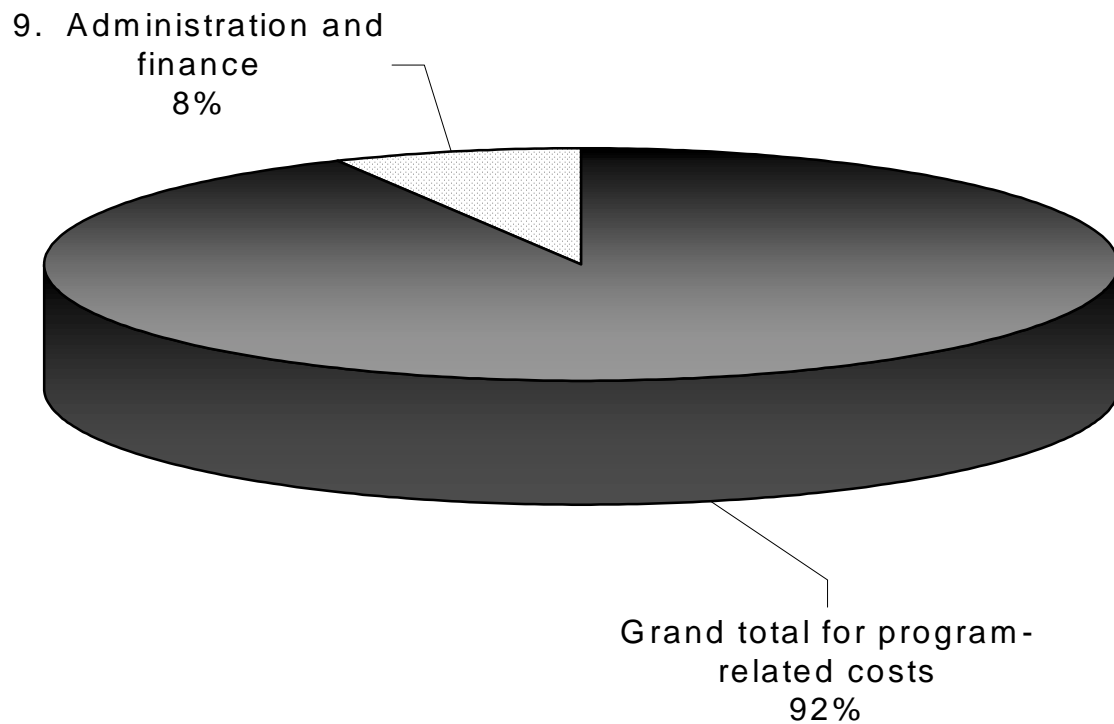
	2002
Description	
1. Program	13,638,000
2. Administration and finance	1,108,000
Total Expense	14,746,000

Revenues

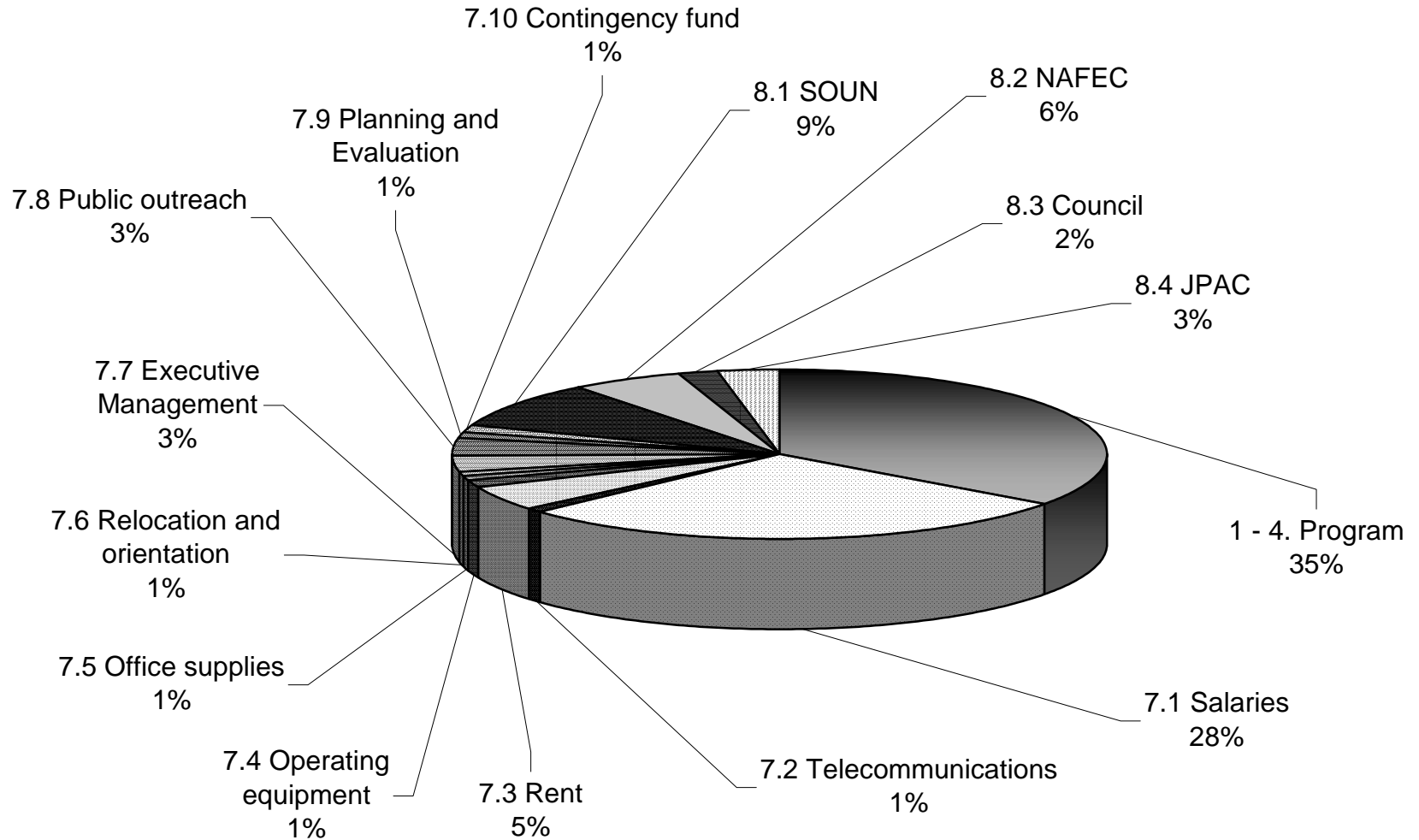
	2002
Income	
Parties' contributions	13,950,000
Carry over	663,000
Interest	133,000
Total Income	14,746,000

Graphic overview

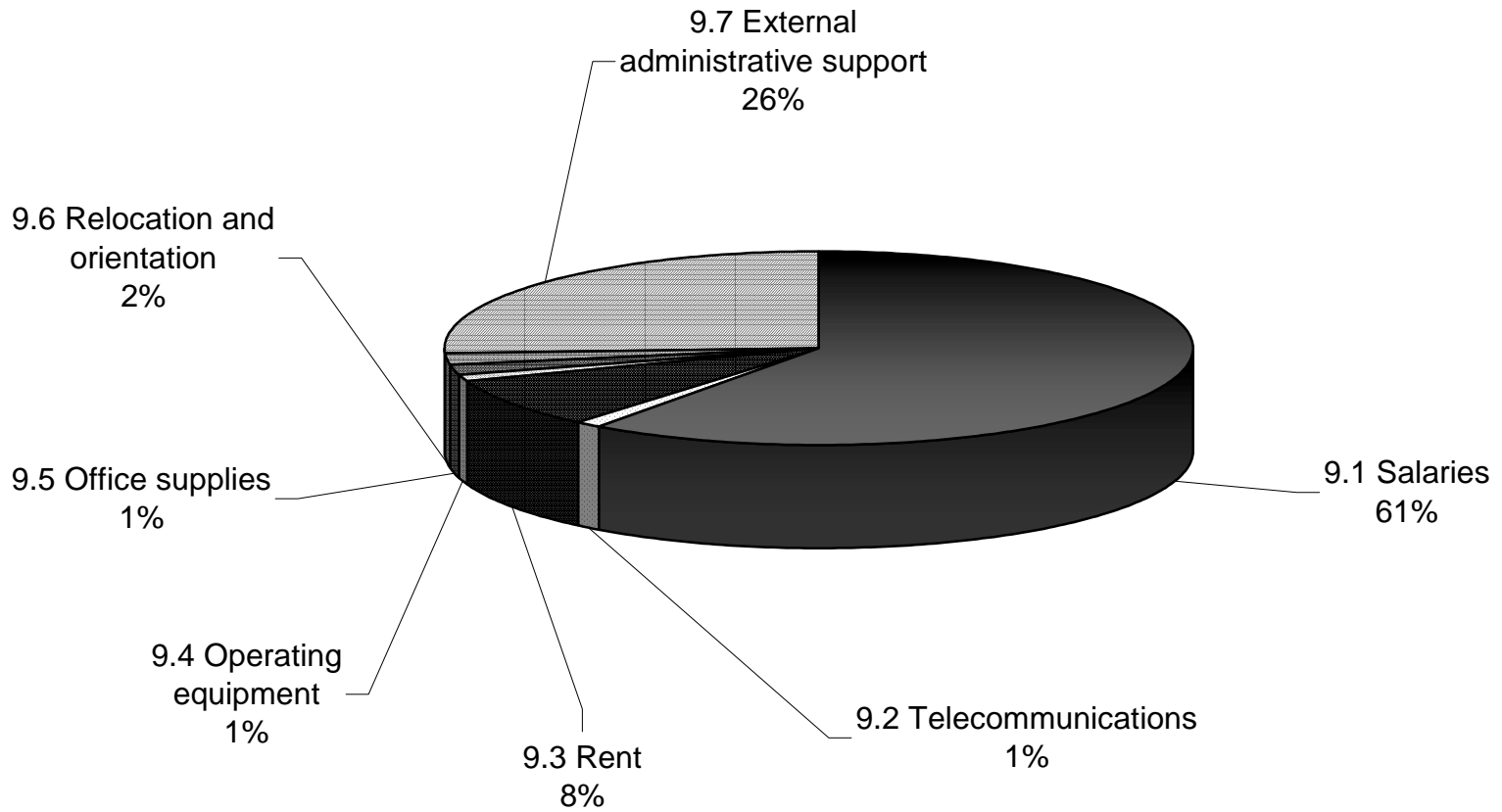
GRAPHIC OVERVIEW - 2002



PROGRAM RELATED COSTS- 2002



ADMINISTRATION AND FINANCE - 2002



ANNEX: A SHARED AGENDA FOR ACTION

A Shared Agenda for Action

**A statement on the future work of the Commission for Environmental Cooperation
Mérida, Mexico, 26 June 1998**

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

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

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

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

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

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

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

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

I. Pursuing Environmental Sustainability in Open Markets

Trade liberalization that is supportive of environmental priorities can be helpful in achieving sustainable development. It can provide additional financial resources for environmental protection, and it can provide

meaningful employment opportunities for the disadvantaged. It can facilitate the importation and use of the cleaner and more efficient technologies necessary for the transition to sustainable development. It can open new market niches for environmentally friendly products.

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

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

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

Promoting Trade in Environmentally Friendly Goods and Services.

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

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

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

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

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

Exploring the Linkages between Environment, Economy and Trade

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

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

Environmental Standards, Enforcement, Compliance and Performance

Experience has shown that it is extremely difficult to compare environmental performance among countries, or even among regions of the same country. Standards are different, pollutants are monitored differently, and legal systems

differ. The CEC should therefore build on its existing work on enforcement cooperation. The CEC should concentrate on:

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

Regional Action on Global Issues

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

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

II. Stewardship of the North American Environment

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

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

The North American Environment—Identifying Emerging Trends

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

Protecting Human and Ecosystem Health

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

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

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

Sustaining North American Biodiversity

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

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

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

III. Implementing the Agenda for Action

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

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

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

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

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

The North American Fund for Environmental Cooperation

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

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