



**North American Agenda
for Action: 2001–2003**

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

November 2000

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PREFACE

The coming into force of the North American Free Trade Agreement (NAFTA), in 1994, 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 (NACEC), 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 2001–2003 program plan sets forth NACEC's work plan for this triennium, continuing in its implementation of NAAEC. It reflects the Council's vision statement, *A Shared Agenda for Action*, by pursuing the twin goals of furthering environmental sustainability in open markets and stewardship of the North American environment.

The 2001–2003 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 2001–2003 program plan gives direction and constancy to the work of NACEC, while retaining the flexibility to respond to new challenges and opportunities.

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

The 2001–2003 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 NACEC-related work, including, for example, consultations undertaken on specific initiatives, such as the Sound Management of Chemicals, the North American Pollutant Release and Transfer Register, Cooperation on North American Air Quality Issues, and other programs and projects.

Approaches

The scale and scope of emerging environmental issues of regional concern call for an unprecedented degree of cooperation between and among Canada, Mexico and the United States. NACEC 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.

NACEC 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, NACEC can maximize the impact of its actions and avoid duplicating the work of others by clearly defining its role and employing its unique attributes to act as convenor, catalyst, and a center for policy, research and information at the North American level. The three-year program plan presents a combination of actions and strategies employing one or more of these functions depending on the stated objectives of the activity.

Role of NACEC

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

Convenor

NACEC 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 NACEC 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, NACEC 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 NACEC.

Catalyst

If the timing is opportune, NACEC also can act as catalyst in North America to spur on worthwhile existing initiatives, undertaken largely by others. In this capacity, NACEC serves as an engine to accelerate the regional implementation of global initiatives or accords. Through partnering and collaboration, NACEC also boosts

promising initiatives requiring modest technical or financial support, greater regional profile, or improved coordination. The unique government-public constitution of NACEC again provides exceptional opportunities for catalyzing incipient actions to produce meaningful results.

Research and Policy Analyst

With its trilateral staff of professionals, the expertise of governments and the growing network of scientific and academic communities involved in the work of the institution, NACEC 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, NACEC continues to provide objective, science-based information and guidance to policymakers and the public-at-large.

Information Hub

In a short period of time, NACEC has established itself as an important repository of regional data and information on the North American environment. NACEC 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 NACEC 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 NACEC.

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 NACEC in pursuit of its mission and mandate are designed to maximize opportunities for public participation and capacity building. The NAAEC expresses the commitment and belief that environmental protection and conservation efforts are enhanced and multiplied through strong mechanisms for public participation. To the greatest extent possible, NACEC 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, NACEC 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 NACEC and to enhance 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, NACEC 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\$).

2001–2003 PROGRAM AT A GLANCE

I – ENVIRONMENT, ECONOMY AND TRADE

- 1.1.1 – Emerging Environmental Trends in North America
- 1.1.2 – Assessing Environment and Trade Relationships
- 1.2.1 – Supporting Biodiversity Conservation through Green Goods and Services: Shade Coffee, the Chamaedorea Palm, and Sustainable Tourism
- 1.2.2 – Market and Financial Mechanisms in Support of the Environment

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 – Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in North America
- 2.1.7 – Closing Pathways of Aquatic Invasive Species across North America
- 2.1.8 – 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
- 3.3.1 – North American Pollutant Release and Transfer Register
- 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 Forum

4.2.2 – Enforcement and Compliance Capacity Building

4.2.3 – Enforcement / Compliance Reporting

4.2.4 – Environmental Management Systems to Promote Compliance and Environmental Performance

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 North American Commission for Environmental Cooperation (NACEC) was founded in the context of economic integration brought about by trade liberalization, with a commitment to high levels of environmental protection. Over-arching objectives of NACEC include advancing the understanding of the relationship between the environment, the economy and trade, and pursuing policies that make environment and trade mutually supportive. Areas of action contained in the Environment, Economy and Trade Program for 2001–2003 are intended to further these objectives.

Goals

The Environment, Economy and Trade program contains two complementary goals: The first is to improve the environmental assessment of trade liberalization and expanding sustainable economic activity in North America. Environmental assessment work must be both backward- and forward-looking, to ensure that lessons learned from past and current environmental impacts help guide the identification of emerging environmental issues, policy priorities and tools. Within the context of trade and environment, NACEC will continue to examine the complex and dynamic relationship between the environment and macroeconomic policy issues, in particular, trade liberalization. The second goal is to support environmental protection by improving our understanding of green goods and services and the use of supporting tools. Green goods and services have the potential to decouple economic and trade growth and environmental degradation. Thus, an underlying goal of NACEC's work on green markets is to translate "win-win" trade-environment objectives into tangible actions. Progress requires microeconomic analysis, links to environmental carrying capacities, capacity building, partnerships and networks to support green markets.

Program Initiatives

1. Environmental Assessments of Trade and the Economy

- Emerging Environmental Trends in North America (forward-looking environmental assessments)
- Assessing Environment and Trade Relationships (current and retrospective environmental assessments)

2. Supporting Biodiversity Conservation Through Green Goods and Services

- Supporting Biodiversity Conservation through Green Goods and Services: Shade Coffee, the Chamaedorea Palm, and Sustainable Tourism
- Market and Financial Mechanisms in Support of the Environment

Effective environmental policies are built around rigorous and timely environmental assessments, and the identification of capacity needs of key stakeholders in supporting the production, consumption and trade in green goods and services. That is, an enhanced understanding of the complex and dynamic relationship between the environment, the economy and trade is needed as a basis for supporting "win-win" environment-trade linkages. Accordingly, the two NACEC work initiatives in this program area are intended to complement one another.

NACEC has developed extensive expertise in furthering the methodology for assessing the environmental effects of trade liberalization, and concrete lessons stemming from those linkages were identified in the October 2000 North American Symposium on Understanding the Relationship between Trade and Environment. It has also acquired analytical and policy expertise in identifying and supporting selected examples of environmentally preferable goods and services.

These two areas—stronger environmental assessment capabilities and tangible lessons in support of "win-win" relationships—form the nexus of the ongoing environment-versus-trade debate. NACEC is now well positioned to play a catalytic role in improving environmental assessments of trade policy reform and in identifying supporting mechanisms to make green markets work effectively. In addition to continuing its analysis of specific products and

services—that is, shade coffee, the chamaedorea palm and sustainable tourism—the 2001 program identifies cross-cutting and supporting mechanisms that are needed to expand the promise of green markets. These mechanisms include cross-work on financing—including accessing micro-credit in support of local initiatives—and market-based instruments like labeling, and the identification of incentives and disincentives that support or impede green markets.

1.1.1 Emerging Environmental Trends in North America

Project Summary

The project will continue to identify and analyze existing and upcoming environmental issues in the next ten to twenty years (2010 to 2020), both in terms of overall trends as well as a more in-depth analysis of specific issues. Different methods, models, environmental indicators, economic coefficients, public opinion surveys and other tools will be used to develop, apply and integrate future environmental outcomes into policy, economic, and financial policies. An important objective of this work is to help anticipate future environmental issues, as a means to integrate forward-looking environmental planning into policy-planning cycles. The steps and processes applied in estimating environmental futures are critical, for they help place the future consequences of today's policy choices and actions in an accessible manner for policy makers and the public. This project combines the use of several sophisticated predictive models and methods to predict the future, with innovative outreach initiatives to maximize public transparency and public participation, including close cooperation with JPAC in framing environmental trends.

Goals and Objectives

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

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

As a tool for strategic policy planning, the project will identify various approaches to assist the Parties in integrating environmental futures into short-term policy-planning cycles as well as in assessing the utility of different approaches intended to manage, avoid and adapt to future environmental change. In addition to employing innovative economic-environmental models to estimate possible future environmental outcomes, the project will continue to employ the materials-flow analysis methodology.

Rationale

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

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

Analysis shows that diverse economic factors affecting environmental quality and environmental policy are variables such as economy-wide growth, changes in international trade and patterns of investment, and economic changes at

the sectoral and inter-sectoral levels—all of which can exert important influences on factors of production, consumption, technological innovation and changes in relative prices. Accordingly, an important emphasis of the project will include estimating underlying economic drivers that affect environmental change.

Progress to Date

Among the milestones of this current work are the following achievements: In May 1999, the Secretariat prepared a background report on emerging environmental trends. Participants at the May 2000 meeting of the Trends Intergovernmental Group agreed on the following:

- The background report on emerging environmental trends, prepared by the Secretariat, was submitted to the May meeting and then released to the public. One emphasis of this report was to highlight links between trends in select areas of environmental quality, based on internal NACEC data, and economic drivers of environmental change.
- The compilation of an abbreviated State of the Environment report, serving as a baseline for the emerging trends work, is to be prepared as the next background report for December 2000, based on submissions from the three Parties and analysis by the Secretariat.
- The hybrid IMPACT model will be used to estimate natural resource competition and possible constraints involving the agricultural sector and urban expansion to the year 2025. Results of the model will be released for comment in December 2000. An important focus of the model is potential freshwater impacts, as well as implications for other key environmental media, including biodiversity, wetlands, and others.
- The first application of materials-flow analysis will be conducted using data from the forestry and agricultural sectors from Canada, Mexico and the United States. Results of this exercise will also be released in December 2000, based on in-house support from the Parties and in close conjunction with the World Resources Institute.
- A questionnaire soliciting views and priorities for the future from the North American public was approved for release in late November 2000.

Actions 2001

Overview

This project will build upon work accomplished to date by the Emerging Trends project. Actions in support of the above objectives will comprise follow-up steps for environmental futures analysis, including further use of such quantitative economic models as the IMPACT model; the deepening of materials-flow analysis to examine trends within the forestry and agricultural sectors, as well as the identification of possible bridges between the two methodologies; the targeted surveying of the public and specialists to obtain a wide range of views on the environmental future; targeted outreach to inform interested public of the results of current research and analysis; and other steps to be determined in late December 2000.

2001	Estimated Resources Required (C\$)
Action 1: Prepare a follow-up report identifying emerging environmental trends, building upon and deepening the results of the December 2000 report of this project	110,000
<ul style="list-style-type: none"> • Activity 1: Prepare a follow-up report that will highlight the following: (a) an abbreviated state of the environment report, to provide a baseline for estimated changes in environmental trends; (b) the further use of quantitative economic models to estimate changes in the environment, including the use of scenarios; (c) the further use of the materials-flow analysis method to estimate flows within and between Canada, Mexico and the United States in key areas; and (d) additional public opinion surveys and specialist surveys on emerging environmental trends 	80,000
<ul style="list-style-type: none"> • Activity 2: Publish background report(s), including translation, printing and distribution 	30,000

Action 2: Seek input from independent experts and the public on draft report	57,000
<ul style="list-style-type: none"> • Activity 1: Engage a small group of independent experts to identify key environmental indicators with which the two central methodologies of IMPACT and materials-flow analysis will be developed. This advisory group should include leading experts in the field of environmental forecasting, representatives from centers of excellence, JPAC and other stakeholders 	37,000
<ul style="list-style-type: none"> • Activity 2: Conduct targeted outreach to seek input from the public and relevant stakeholders on (a) findings to date of NACEC’s work, and (b) the further identification of concerns and views 	20,000
Total Resources Required	167,000

Public Participation

An integral part of the ongoing work on emerging trends will be to support a continuing dialogue with the public in helping to shape the initial reports as well as contribute to the focus of the overall project work. Consultations with selected stakeholders will be held in 2001, including the consideration of a second meeting with JPAC, to solicit views on different approaches and the priorities of various environmental trends.

Capacity Building

This project is a research-intensive exercise intended to raise awareness among a wide range of stakeholders about possible trends in the environment. A major focus will be to identify ways to improve information available to policy makers, the private sector, research organizations, NGOs, and other stakeholders in the three countries about ways of looking at emerging trends. In this regard, the capacity building already established in 2000 around data collection and correlation for the use of materials-flow analysis will continue in 2001.

Expected Results

By June 2001, the second report on emerging environmental trends will be released. Based on the findings of this second report, a major focus of the follow-up work will be to determine how to integrate long-term environmental forecasting and anticipatory tools into the policy planning cycle of governments, the private sector, NGOs and other key stakeholders.

Expected Partners and/or Participants

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

Linkages to other NACEC Projects

Given the interdisciplinary nature of this project, activities will be closely coordinated with a number of other NACEC projects and activities. This will include drawing upon environmental data made available through various projects, including NABIN and others in the Conservation of Biodiversity program area, the North American Pollutant Release and Transfer project, and other areas.

Actions 2002–2003

Overview

Actions for 2002 will be based on the recommendations of the intergovernmental group, outside experts, JPAC and other stakeholders. The future work of the project may include:

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

2003

NACEC anticipates continuing work in this area in 2003.

1.1.2 Assessing Environment and Trade Relationships

Project Summary

This project is designed to deepen understanding of the linkages between the environment and trade liberalization, in accordance with the provision in Article 10(6)(d) of NAAEC to undertake an “ongoing assessment” of the environmental effects of NAFTA. Using NACEC’s *Final Analytic Framework for Assessing the Environmental Effects of the North American Free Trade Agreement (NAFTA)* as a methodological reference point, and guided by the results of the October 2000 Symposium on Understanding the Linkages between Trade and the Environment, this work will continue to examine environmental issues and policies in pursuit of mutually supportive trade-environment goals. Following the successful outcome of and high public interest in the first symposium, NACEC will prepare for a follow-up workshop, symposium or other forum to be held in the future to maintain the momentum created by the 2000 symposium. Among the strengths of NACEC’s work in this area is the commitment to undertake trade-related environmental assessments in an open and participatory way.

Goals and Objectives

The goal of this project is to better understand the linkages between environment and trade in the NAFTA context. Over the long term, this will strengthen environmental protection in the region and enable the NAFTA partners to optimize the benefits of free trade, while mitigating negative impacts. Public meetings (in the form of workshops, symposia or other, as determined by NACEC) will be held periodically as needed to keep abreast of new developments in measuring the environmental impacts of trade, and more particularly of NAFTA.

Specific objectives include:

- actively disseminating the Analytic Framework for assessing the environmental impacts of trade liberalization measures under NAFTA, and identifying on an ongoing basis ways of improving that Framework;
- convening leading trade and environment policy centers to refine the Framework, identify lessons learned from the October 2000 symposium, and prioritize steps towards trade and environment policy integration;
- examining environmental costs and benefits of trade liberalization, including the use of natural resource and green accounting methods in trade, and suggesting alternative economic cost estimates;
- deepening analysis of relevant environmental issues and trade-policy and trade-flow linkages, guided by the results of the October 2000 symposium and in preparation for follow-up public meetings

Rationale

This project is intended to build on the methodological work carried out by NACEC, and the findings of the first North American Symposium on Understanding the Relationship between Trade and Environment, held in October 2000. In addition, it will assist the Council to fulfill its mandate under NAAEC Article 10(6)(d) to cooperate with the NAFTA Free Trade Commission to achieve the environmental goals and objectives of NAFTA by “...considering on an ongoing basis the environmental effects of NAFTA.”

Progress to Date

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

In Phase II, specific issue studies were undertaken that, considered together, addressed 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, NACEC 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 NACEC symposium, featuring broad participation from experts and the public from Canada, Mexico and the United States.

Actions 2001

Overview

The goal of the October 2000 symposium was: (a) to advance the understanding of linkages between environment, economy, and trade, including understanding the applicability of the Analytic Framework; (b) to estimate actual environmental effects of free trade; and (c) to identify the policy implications arising from observed environmental effects arising from trade liberalization. For each of these goals, areas of further study were also identified by symposium attendees, National Advisory Committees (NACs) and JPAC. Public response to the symposium was welcomed both by leading research centers and nongovernmental organizations, as well as the Parties themselves, as advancing the environment-trade debate with concrete and robust results. Several issues identified during the symposium—including (a) ways to improve methodological issues related to assessing trade-related environmental effects; (b) environmental issues and policy responses arising from trade links; and (c) ways of engaging the public through transparency and public participation—will form the basis of NACEC's work in 2001 in this area, in preparation for a second public meeting (as a workshop, symposium or other forum) contemplated for 2002–2003.

2001	Estimated Resources Required (C\$)
Action 1: Publish the proceedings of the symposium, including the 14 papers, highlights of discussions and background materials	80,000
Action 2: Undertake further analytical work of relevant methodological, analytical, policy and public process issues in support of a future workshop, symposium, or other forum contemplated for 2002–2003	75,000
<ul style="list-style-type: none"> • Activity 1: Identify environmental and economic data needs and coefficients necessary to deepen environment-trade links, including a background report 	35,000
<ul style="list-style-type: none"> • Activity 2: Examine policy options to coordinate trade and environmental policies, including work from emerging trends 	20,000
<ul style="list-style-type: none"> • Activity 3: Upon instructions from Council, convene a meeting of government experts, international organizations and others to pursue specific issues related to this work 	20,000
Action 3: Seek public input, in close conjunction with JPAC, the NACs and GAC, on best practices of public participation related to environmental reviews of trade. Prepare a report on public participation	30,000
Total Resources Required	185,000

Public Participation

An important goal of NACEC's work on NAFTA Effects has been to ensure ongoing public input at all levels. Examples of how this goal has shaped NACEC's work have included: issuing a public call for papers for the first North American Symposium on Understanding the Linkages between Trade and Environment; inviting a wide range

of the public from the private sector, nongovernmental organizations and institutions to participate in the symposium; and exploring innovative ways of reaching the public unable to attend the symposium, including the use of the NACEC home page, listserv and other tools. As a follow-up to this meeting, an important output of NACEC's work will be public consultations regarding lessons learned and best practices for public participation in environmental reviews of trade.

Capacity Building

In addition to identifying environmental impacts of trade liberalization at the symposium, the preparation of that meeting saw the linking of different groups and individuals from the three countries in the preparation of substantive and original analysis. 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 diffusion and application of the NACEC-developed assessment framework has advanced understanding of trade-environment linkages during a time when the public, private sector and governments continue to place value on environmental assessment of trade agreements. NACEC anticipates that lessons learned during the October 2000 symposium will provide guidance to other international organizations, governments and policy and research centers undertaking work in this area. Equally important, NACEC's work will continue to move the environment-trade debate from abstract to concrete lessons regarding areas such as aggregation of environmental indicators, sectors more or less sensitive to environmental effects, as well as reaffirm the important role of the public in environmental reviews.

Expected Partners and/or Participants

NACEC will actively seek partners to continue the work of understanding the environmental effects of trade, including UNEP, OECD, the WTO, the CSD, the World Bank, research centers, NGOs and others.

Actions 2002–2003

2002
To be determined

2003

NACEC anticipates continuing work in this area in 2003.

1.2.1 Supporting Biodiversity Conservation through Green Goods and Services: Shade Coffee, the Chamaedorea Palm and Sustainable Tourism

Project Summary

This program is designed to promote sustainable agriculture, the conservation and sustainable use of wildlife species, and sustainable tourism in North America in the context of trade, and facilitate the development of regional approaches to support sustainable use and biodiversity.

This project continues and deepens analysis and practical steps to expand the supply and demand for environmental goods and services. NACEC will continue to assess environmental dimensions, market characteristics and supporting networks and policies for selected green goods and services. This analysis will include information regarding their potential environmental, economic and social impacts, using different analytical techniques, including natural resource and environmental accounting to convey different costs and benefits of green markets.

NACEC will continue to examine three products and services: shade coffee, the Chamaedorea palm and sustainable tourism, emphasizing intra-project synergies as well as using the convening power of NACEC. This clustering combines three 2000 projects, namely: Facilitating Trade in Green Goods and Services: Promoting Sustainable Agricultural Production and Trade; Facilitating Conservation of Biodiversity as it relates to Trade in Wildlife Species; and Sustainable Tourism in Natural Areas. The underlying logic of this clustering is that, in addition to deepening analysis and work within each of the product/service categories, generic lessons linking all three with other product categories can be extrapolated.

This project will be undertaken in close conjunction with NACEC's Conservation of Biodiversity program area. The project concentrates on shade coffee and the Chamaedorea palm, the production of which has the potential for enhancing habitat conservation and preserving biodiversity. Similarly, the inclusion of a services sector—sustainable tourism—will concentrate on the relationship between tourism and the conservation and sustainable use of biodiversity. Although important differences exist within and among these three areas, the project will continue to identify common elements related to sustainable production, as well as the market and awareness-raising issues needed to support sustainable consumption. Cross-cutting issues include: the assessment of biodiversity and environmental dimensions of green goods and services; potential markets where green goods and services are or can be sold; and the market, pricing and policy impediments to green market expansion.

Goals and Objectives

The predominant focus of NACEC's work in this area is to better understand market characteristics and the potential for an expanded production, consumption and trade in green goods and services. This project examines both improved production capacities and broader consumer interest in green goods and services.

Lessons learned from the work on Mexican shade-grown coffee, Chamaedorea palm and tourism, in terms of environmental production criteria, levels of consumer interest, retail and financing issues, product verification claims, access to external markets, and price differentiation, have helped form the foundation to deepen analysis of the environmental and other benefits that could accrue from increased production, consumption and trade in these goods and services. In addition, an important component of this project is to facilitate an exchange of information between producers and consumers of green goods and services, as well as intermediary stakeholders, and evaluate their capacity-building needs and market characteristics—based on the hypothesis that an increasing share of green goods and services has the potential to decouple economic and trade growth from environmental degradation. As part of this work, NACEC will generate data that could be used to test that hypothesis.

Among the specific objectives of the Supporting Biodiversity Conservation through Green Goods and Services project are:

- furthering the analysis of each of the three products/service, resulting in a deepened understanding of links to biodiversity endowments and ecosystem carrying capacities arising from production shifts;
- identifying market and pricing characteristics and the necessary partnerships between public and private sectors and civil society, based on previous NACEC work, as a means for clarifying the market potential of these three sectors;

- drawing lessons learned from similarities and differences among the three sectors, with an emphasis on specific supporting mechanisms—such as environmental labeling and certification, access to financing, market information needs, supporting public policy measures, consumer education, and other mechanisms;
- using the convening power of NACEC to identify areas in which additional study is needed in order to learn generalized lessons applicable to other green goods and services and build necessary networks in North America; and
- developing criteria to evaluate the environmental, economic, and social impacts of trade in green goods and services.

Rationale

Biodiversity in North America is threatened by several factors, including habitat destruction through unsustainable land use. This project is intended to provide concrete examples of sustainable use and “win-win” trade-environment links that make tangible progress in decelerating and reversing biodiversity losses, while simultaneously demonstrating to local communities that biodiversity has an economic value for the benefit of all. Experience gained by NACEC in green goods and services shows that analysis must disentangle production, consumption and market characteristics of these goods and services. Important elements include: understanding the environmental dimensions of green goods and services; working closely with farmers, local communities, cooperatives and others directly involved in the production of goods and services; working with the private sector in partnership with certification bodies in defining criteria that are robust and equitable; identifying financing issues, including access to micro-credit; and deepening understanding of consumer interest, potential demand, and price premium associated with green goods and services. Together, these and other elements translate “win-win” trade-environment links into concrete outcomes that can be generalized for other goods and services.

Agriculture, the extraction of wildlife species, and nature-based tourism continue to be the primary focus of this program, because of the strong links between their execution and natural and environmental resources. These markets also represent important ways of safeguarding sustainable livelihoods in smaller communities. Linking production and consumption issues in these three products/services raises other important issues. For instance, the consumption of agricultural products highlights environmental and human health consumer concerns. Increased consumer demand reflects both environmental as well as human health concerns related to the types of agricultural products consumed. In response, environmentally sound agricultural production and the marketing of natural or organic foods continue to represent a growing market niche.

Among the public policy challenges arising from trends in supply and demand for environmentally sound agricultural products are the following: ensuring that pricing distortions arising from various trade policy interventions are minimized; supporting, where appropriate, the facilitation of trade and marketing measures in response to consumer interest in verifying “green” product claims; and providing timely, focused information to producers of green agricultural products about relevant regulations, and marketing and exportation considerations.

Similarly, tourism represents an expanding multi-billion-dollar economic sector, with growing consumer interest in, and willingness to pay for, sustainable, nature-based tourism activities. More than any other services sector, tourism depends on a healthy natural environment: Canada, Mexico and the United States all rely, to varying degrees, on their natural and cultural assets—their mountains and monuments, rivers, and old-growth and tropical forests—to generate tourist dollars. By conserving and wisely managing ecosystems and defining carrying capacities, communities, the private sector and governments alike stand to benefit from tourism increases.

The countries of North America share many problems related to tourism, including the negative impacts of tourism on popular “hot spots,” lack of planning and control, and development of plans and partnerships. Given the limited resources of NACEC, efforts in tourism will be closely linked to the earlier identification, in 2000, of priority ecoregions.

Based on its acquired experience, NACEC will also focus its work toward providing communities with the tools to develop and prepare sustainable management plans.

Progress to Date

Work in this area demonstrates how NACEC can translate the three goals of the Convention on Biodiversity—benefit sharing, sustainable use and conservation—into tangible market lessons. Among these is the lesson that

efforts to translate win-win goals into market reality require the linking of micro-economic analysis with appropriate capacity building, networking and other areas.

Shade-grown coffee

Following the publication of the first-ever North American market study on shade-grown coffee, along with work with the Smithsonian Migratory Bird Center, NACEC hosted a workshop in late March 2000, in Oaxaca, uniting relevant actors from the entire production-consumption chain. The meeting resulted in the identification of key areas of work for 2001, including: the facilitation of discussions among competing entities to accelerate market access to this growing area; the creation of three working groups—producers, industry and certification bodies—to facilitate a productive dialogue; the recognition of the pivotal role that small-scale farmers, cooperatives, associations and others play in support of sustainable coffee; the importance of clarifying an environmental and biodiversity baseline in examining shade-grown coffee potential; the importance of deepening the market analysis of consumer interest in shade coffee, and other areas. In 2001, NACEC will support partnerships among growers, coffee associations, rural communities, buyers, certification groups, environmental and conservation groups, and others. It will also examine specific public policies, including trade policy, domestic subsidies, government procurement and other measures in support of conservation coffee. Links will be made with two other NACEC endeavors, the project on Market and Financial Mechanisms in Support of the Environment and the Conservation of Biodiversity program area, to make progress on the breadth of issues in this project.

The Chamaedorea palm

In the winter, the Working Group identified the Chamaedorea palm as a target species for the development of a baseline study that aims to understand the economic, ecological, and social impacts of trade in this species of palm. In June 2000, experts gathered at *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad* (Conabio) to identify research and information needs to study these impacts. Criteria have been developed for choosing a pilot project site. Results from this study will be presented to the second meeting of the Working Group, postponed to February 2001.

Sustainable tourism

Following a June 1999 workshop, the project released an overview report on sustainable tourism in North America, identifying definitions, initiatives, environmental efforts, consumer awareness of sustainable tourism, and a compilation of “best practices” that help define sustainable tourism in an operative sense. This report, released in March 2000, complements the NACEC online database on sustainable tourism, which describes certification and guidelines (for example, green certification codes of good practice, etc.). By December 2000, NACEC will release a “best practices” manual for sustainable tourism. The next step will be to translate the completed definitions of sustainable tourism to the Baja to Bering region and identify needs and opportunities. Best practices in the use of criteria identified through the project’s work will provide the groundwork for promoting trade in other sustainably produced goods and services.

Should it not be possible to complete these activities in 2000, they will be pursued in 2001.

Actions 2001

Overview

In 2001, 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. Based on already acquired expertise in the various goods and services, cross-cutting issues will be identified and generalized to other products. Future actions will be based on the findings of the continued work in shade-grown coffee, the Chamaedorea palm and sustainable tourism.

Actions for 2001 are:

- Draw lessons learned from the various issue areas on market potentials for “green” agricultural and natural products and tourism.

- Assess the possibility for generalizing environmental criteria related to production methods, best-practices and code of conducts for shade-grown coffee, the Chamaedorea palm, and other products, as well as tourism, that have the potential for enhancing habitat conservation.
- Identify appropriate public policies in support of increased trade in these agricultural and wild species products.
- Identify other agricultural commodities for market and other supporting measures.
- Form cooperative partnerships with private sector actors to promote environmentally sound agricultural products, including specific follow-up actions identified in the 2000 shade-grown coffee workshop in Oaxaca.
- Increase public awareness of the potentially positive attributes of environmentally sound products.

<i>2001</i>	Estimated Resources Required (C\$)
Shade-grown coffee (last year for this project)	
Action 1: Examine and support partnerships in support of sustainable coffee	115,000
<ul style="list-style-type: none"> • Activity 1: Facilitate, through the dissemination of lessons learned, discussion of coffee labeling and certification issues in other appropriate fora; continue to promote information exchange between the three subgroups, composed of (a) producers and related stakeholders in Mexico, (b) industry, and (c) certification bodies; and gather and share the views and experiences of stakeholders with others interested in this area of work 	60,000
<ul style="list-style-type: none"> • Activity 2: Continue supporting consumer education on the benefits of buying sustainable coffee and provide technical assistance to small producers on sustainable production methods to meet certification and on options for accessing credit 	25,000
<ul style="list-style-type: none"> • Activity 3: Release experts' summary report on lessons learned from the shade coffee project 	30,000
Chamaedorea palm	
Action 2: Support biodiversity conservation efforts on sustainable trade in Chamaedorea palms	75,000
<ul style="list-style-type: none"> • Activity 1: Undertake economic and trade-related actions identified by the intergovernmental working group 	75,000
Sustainable tourism	
Action 3: Continue to explore national and regional sustainable tourism policies and approaches and support pilot projects on sustainable tourism related to marine conservation in the Baja to Bering region	40,000
Action 4: Cross-cutting issues—Identify and analyze similarities and differences among the three products/services, to draw lessons learned that are directed toward distinct groups: growers and providers, communities and cooperatives, buyers and industry, certification bodies, and governments	40,000
Total Resources Required	270,000

Public Participation

Consultations with selected stakeholders, including government experts, producers, distributors/providers, marketing experts, consumer groups, environmental and conservation groups, and other relevant parties will be organized in order to consider the results of the work as it becomes available in draft report form. Partnerships will include

NAFEC-related communities and organizations involved in the actual production and certification of shade-grown coffee and tourism and other products with the potential for enhancing habitat conservation.

Capacity Building

An important element of this project is capacity building. An important focus of work will be on providing the small and medium-size producers with practical marketing information, which includes the market potential for a specific range of commodities. The report addressing “lessons learned” will be developed in consultation with relevant groups involved in recent NAFEC projects in these areas. NAFEC should consider using its financial leverage to support pilot projects to test some of the results about the green goods and services studied above.

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, sustainable tourism, and wild areas (including protected areas) based on lessons learned from these three 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, labeling and certification bodies, financial intermediaries and other stakeholders involved in shade-grown coffee, tourism, and other products with the potential for enhancing habitat conservation.

Linkages to other NACEC Projects

This project is conducted jointly with the Conservation of Biodiversity program area to gather biodiversity impact information, and pilots are conducted in ecoregions selected as important by that 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.

Actions 2002–2003

NACEC will conclude work on sustainable coffee in 2001. NACEC will assess progress of the three pilot cases. Upon completion, NACEC will generalize the findings to other potential product or service categories and consider their application in selected priority regions. The shade coffee project will end in 2001. In 2002–2003, based on its acquired experience, NACEC will focus its work toward providing communities with the tools to develop and prepare sustainable management plans.

1.2.2 Market and Financial Mechanisms in Support of the Environment

Project Summary

This project is intended to identify, analyze and support biodiversity and measures required for efficiently functioning green markets and “win-win” environment-trade links. One element of this project is to support NACEC’s work in shade coffee, palm production and marketing and sustainable tourism, by identifying cross-cutting measures such as financing and complementary market mechanisms. However, the primary focus of the project is to make progress in wider policy dimensions of environmental financing, market mechanisms and public-private sector partnerships.

Two complementary areas of focus comprise this project. First, effort 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 services agendas. The environment represents an important, dynamic and 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. NACEC will continue to provide information and analysis on links between environmental and financial risk, including information on the application of various risk tools now available, as well as on the role of resource and environmental accounting in the quantification of environmental costs and benefits. Building on NACEC’s work in 2000—for example, in financing shade-grown coffee and investment opportunities associated with certain aspects of the Kyoto Mechanisms—the project will encourage greater involvement by private investment in the environment.

Second, it is now widely recognized that, in addition to financing, appropriate market instruments are needed to support efficiently functioning environmental markets. Work undertaken thus far by NACEC in environmental labeling provides an important foundation upon which to identify and support measures that differentiate products and services in the marketplace based on their environmental characteristics, thereby allowing consumers information upon which to make purchasing decisions. Labeling is but one of numerous market mechanisms, and the project will provide analysis on other measures, including the role of trade policy—for example, escalating tariffs within a product category, the role of incentives and private-public partnerships in supporting green markets, the use of user fees to allow access to biodiversity-rich areas, and other policies.

As noted, financing and supporting mechanisms are reinforcing. By way of illustration, the financial community continues to examine various certification schemes like the ISO 14000 series, environmental management or voluntary environmental reporting, as useful information in credit risk and investment decisions. Similarly, various public policies—from subsidies in specific markets to procurement policies—can have important effects on the viability of green markets.

Goals and Objectives

The main goal of this project is to encourage expanded production, consumption and international trade in the environmental goods and services sector. 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, to identify ways in which private-public partnerships can be deepened and strengthened.

The project will focus on the following objectives:

- providing timely and relevant information to the financial sector on environmental regulatory, policy and other trends, as well as the financial implications and opportunities arising from the North American and international environmental agenda;

- providing information in support of efforts within selected sectors to integrate environmental considerations into core business risk management decisions;
- facilitating increased involvement by the sector in financing and investment activities in shade coffee, the Chamaedorea palm, and sustainable tourism;
- making available information and facilitating a dialogue between the financial services sector and relevant producers of green goods and services;
- achieving a broader and deeper understanding, based on the comparison of current NACEC issue areas, of practical challenges and opportunities involved in promoting green goods and services;
- highlighting the North American market, future opportunities and environmental considerations of other products using the acquired knowledge; and identifying potential pricing distortion or externalities that impede the expanding of green goods and services, and corrective steps to reduce such distortions; and
- identifying cross-cutting measures to promote expanded trade in products with the potential for enhancing habitat conservation.

In addition to highlighting the potential for labeling and certification to promote green goods and services, the analysis will concentrate on identifying policies that serve to distort trade, or to facilitate trade in sustainable agricultural products. These will be compared to other market-based tools such as subsidies, taxes, and others.

Rationale

A guiding rationale for this project is the recognition that environmental protection and sustainable development exceeds the capacities and expertise of public finance alone, and that private investment represents an increasingly important component for ensuring that economic globalization and environmental protection are mutually supportive. Market-based approaches have gained considerable support from policy makers over the last decade. In a changing environment, actors need to be able to adapt. Under certain circumstances, a market-based approach gives actors and industry greater flexibility to environmental objectives in a least-cost manner. In addition, market-based mechanisms stimulate cost-savings innovations through clear performance objectives. Market-based approaches can be voluntary, such as labeling and certification, or mandatory, such as performance standards, taxes, or subsidies. In 2001, NACEC will continue analyzing market-based approaches that can support the green goods and services initiative and other areas identified in the context of the trends and linkages projects. These approaches will be compared/combined with innovative financing mechanisms.

There is a strong link between environment-related financing and efforts within markets to define and differentiate the environmental characteristics of products and services available in the marketplace. Work by NACEC in environmental labeling has been designed to provide information to producers and consumers on the environmental criteria and assumptions of environmental labeling in four areas: shade-grown coffee, sustainable tourism, “green” office products, and “green” and renewable electricity.

Progress to Date

In 2000, NACEC launched four searchable, online databases on environmental labeling. Various actors in the marketplace, including institutional buyers, certification bodies, consumer groups, industry and others, are using these databases. They provide accessible tools that allow interested parties to examine the comparability of different schemes and underlying criteria. Related work in 2000 includes the release of a background report on mutual recognition of environmental labeling, with an emphasis on shade-grown coffee, and a background report on recent trends in the North American organic agricultural market.

Also in 2000, NACEC released a report identifying investment opportunities related to the Clean Development Mechanism (CDM), covering three sectors in Mexico, with an emphasis on opportunities involving small and medium-size enterprises: land-use change and forestry, steel, and electricity. Potential carbon credits are identified and quantified in the NACEC report as a means of providing information to potential investors on the size and characteristics of CDM markets in Mexico. In 2000, NACEC also released an overview report on recent activities related to environmental financing, including the development of new credit risk and rating tools, as well as investment trends. An advisory group, composed of representatives from North American investment and commercial banks, will meet in January or February 2001 to examine possible private-public sector partnerships in this area. Information in support of this January or February meeting includes tools and trends of possible use to the financial services sector, as well as information regarding public policies that affect financing opportunities.

Following that meeting, this project will provide recommendations covering various areas of relevance to public–private sector partnerships. It will also examine how NAFEC can be used to support such partnerships through innovative financing.

Actions 2001

Overview

This project will provide specific financing and market-based approaches in support of continued work on the Chamaedorea palm and sustainable tourism (and shade coffee by other organizations). To assess their applicability to other product areas and sectors, lessons learned in the following and other areas will be examined: the environmental implications of promoting green goods; market-assessment needs; policies supporting and facilitating sustainable trade, including certification and labeling schemes; the needs of agricultural producers; and promoting cooperative public–private sector partnerships.

Beyond these three product/services groups, the project will explore broader financing issues in close conjunction with the private sector, and link those opportunities to required market mechanisms.

2001	Estimated Resources Required (C\$)
Action 1: Identify market opportunities for green goods and services:	88,000
<ul style="list-style-type: none"> • Activity 1: Using shade coffee, the Chamaedorea palm and sustainable tourism as reference points, prepare a report on financial tools and opportunities to increase access to financing of green markets, including the role and potential of public policies (trade policy, public financial transfers, procurement and other measures in support of green markets), and to support market mechanisms needed to bolster green markets 	73,000
<ul style="list-style-type: none"> • Activity 2: Identify and evaluate options for a NAFEC role in leveraging private sector finance of small-scale “green” market projects, following review of 2000 NAFEC feasibility report 	15,000
Action 2: Hold second advisory group meeting with the private sector on financing and related market mechanisms	20,000
Action 3: Broaden online databases to increase accessibility of environmental labeling schemes, and include information on other market schemes	20,000
Total Resources Required	128,000

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 voluntary industry initiatives, labeling 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. Other potential partners will include JPAC.

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 reports will be a needs assessment to help community, environmental and other groups build beneficial relationships.

Expected Results

Improved information about market 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 green markets.

Expected Partners and/or Participants

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

Linkages to other NACEC Projects

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

Actions 2002–2003

NACEC anticipates the continuing study and analysis of market mechanisms focusing on issues central to the work program in future years.

CONSERVATION OF BIODIVERSITY

North America supports some of the most diverse marine and land ecosystems on Earth. Mexico alone stands out among all countries of the world for the megadiversity of species, ecosystems and the endemisms present in its territory. The problems confronting the North American region are, however, as vast as its wealth of life forms: threats to biodiversity and to the health of North American ecosystems put both at risk for current and future generations. 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

The mission of work in the Conservation of Biodiversity program area is to promote cooperation among Canada, Mexico and the United States in fostering the conservation of North America's biodiversity. NACEC will intensify its efforts to add value to regional actions for preserving biodiversity by pursuing the following general objectives:

- Identify and evaluate the most promising ways of conserving, fostering and restoring biodiversity and ecological processes in North America.
- Identify and promote instruments and mechanisms for the conservation of regions, areas and corridors used by transboundary and migratory species.
- Create networks of experts to analyze threats to biodiversity and recommend actions for responding to them.
- Promote sustainable and equitable use of the products and services afforded by biodiversity.
- Improve information, understanding and awareness of biodiversity, in order to foster better decision-making and a quantitative and qualitative increase in public participation, leading to actions to maintain, conserve, restore and sustainably use biodiversity.

NACEC acts as consensus builder and catalyst, in cooperation with the three governments and various stakeholder groups, to develop strategies that bring a holistic approach to face the biodiversity challenges of North America. The strategic approach used by the program takes advantage of NACEC's interdisciplinary structure and its capacity to work with regional stakeholders.

Program Initiatives

In order to carry out the above objectives, this program focuses on implementation at both the continental and regional scales, developing NACEC as a forum for coordinated, continental solutions to key conservation challenges, as well as providing more limited and targeted geographical focus and interdisciplinary approaches to conservation activities. These two parts are detailed in the following work plan:

- 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
- Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in North America
- Closing Pathways of Aquatic Invasive Species across North America
- North American Biodiversity Information Network

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

Project Summary

This project will help guide NACEC's long-term agenda for biodiversity conservation throughout North America and ensure the program's initiatives are effective, efficient and comprehensive. Strategic and cooperative action for the conservation of biodiversity shall be implemented through the Strategic Plan for the Conservation of Biodiversity at both the continental and regional scale, guided with the support of the Biodiversity Conservation Working Group, and evaluated at the regional level by appropriate performance indicators.

The Biodiversity Conservation Working Group will provide guidance and direction on all biodiversity conservation issues related to North America for the NACEC Conservation of Biodiversity program. The Biodiversity Conservation Working Group will also receive feedback from, and provide input to, other biodiversity program initiatives. In addition, the working group will finalize the Strategic Plan for the Conservation of Biodiversity; assist in the review of past and ongoing work of NACEC related to biodiversity conservation to incorporate past experience in the Strategic Plan; provide recommendations on how to implement the Strategic Plan, including the Regional Action Plans; identify opportunities for collaboration and partnership in present and future work of NACEC related to biodiversity conservation; liaise with other NACEC Conservation of Biodiversity steering committees and working groups to provide recommendations on how to implement the Strategic Plan; develop performance indicators to assess impacts of the Strategic Plan; and conduct capacity-building and outreach activities that support the plan's implementation.

In order to assess the effectiveness of actions and policies concerning biodiversity conservation, as well as NACEC's performance at a regional level, NACEC will promote cooperation between regional and local institutions involved in on-site monitoring and assessment.

Goals and Objectives

The goal of this project is to ensure that the strategic plan for NACEC in the area of biodiversity is producing effective, efficient and inclusive conservation initiatives at both continental and regional scales. The project is to provide the public and private sector with environmental targets and performance indicators, as well as the means for measuring the effectiveness of actions and policies through the development of periodic reports on biodiversity conservation at a regional scale. This will allow improved decision making and enhanced implementation of preventative measures.

In pursuit of these goals, the following objectives will be addressed:

- Ensure that key issues affecting North American conservation and sustainable use of marine, coastal and terrestrial biodiversity are benefiting from concerted action at the North American scale.
- Ensure that conservation challenges of priority geographical regions for North American cooperation are being addressed via the development, facilitation, and implementation of Regional Action Plans.
- Ensure that the needs and priorities for capacity building in the various sectors involved in North American biodiversity conservation are being met.
- Evaluate the effectiveness of actions and policies concerning biodiversity at a regional level.
- Emphasize harmonized indicators and comparable data within existing infrastructure and available capacity.
- Demonstrate the utility of sound ecosystem monitoring for resource managers, ecologists, planners and decision makers.

Rationale

As emphasized in *A Shared Agenda for Action*, many environmental nongovernmental organizations, government departments and international organizations are working to conserve North America's natural heritage. NACEC is building on the efforts of this broad conservation community and identifying actions that add value by drawing on its special capabilities. Through a coordinated, strategic, systematic effort, NACEC is strengthening the capacity to conserve North American species, ecosystems and natural diversity.

Moreover, by bringing regional, national and international players from various disciplines and sectors together to address regional challenges, NACEC is enhancing coordination and fostering greater cooperation among nations and peoples of the continent. The resultant synergies will help create the critical mass necessary to move conservation efforts forward on a regional scale.

Progress to Date

This project builds upon previous and current work of NACEC, as well as on other work of regional relevance, to create strategies for biodiversity conservation in North America. Previous work of NACEC 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 World Wildlife Fund) and *Securing the Continent’s Biological Wealth: Towards Effective Biodiversity Conservation in North America—Integrated Baseline Summary*. The latter report, developed in 1999, summarizes the status and potential areas of action for conservation in North America, identifying issues that would benefit from cooperative efforts on a regional scale.

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—an example of which was a small workshop with indigenous people from throughout North America that the Conservation of Biodiversity program held in coordination with JPAC. This workshop sought guidance on key conservation challenges for North America, as well as on action the program could take to deal with these challenges. Also, in a workshop of North American experts in the fields of ecology, conservation biology and environmental studies, fourteen priority regions were identified in terms of ecological significance, conservation threat, and opportunities present. By year-end, the results gathered will have been reviewed and incorporated into the development of NACEC’s Strategic Plan for the Conservation of Biodiversity, defining lines of action NACEC could take on various themes in the short, medium and long term. Also by year-end, on a regional scale, the priority regions will be selected and the preliminary steps leading toward the development of Regional Action Plans will have been undertaken.

Actions 2001

Overview

During the period 2001–2003, work will move from the North American scoping stage to continental- and regional-scale planning, implementation and evaluation. Existing and past initiatives such as NABCI, SCCC, MPAs 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. Some may turn out to be relevant at the regional scale for the first two regions selected, while others may prove to be useful for future regions. However, before the Regional Action Plans are drafted, decisions cannot be made as to the exact tools to use.

A means to track, evaluate and bring long-term guidance to the Strategic Plan will be developed. The Biodiversity Conservation Working Group will be established to provide NACEC with guidance and direction for the Conservation of Biodiversity Program, and an effective means will be developed for ensuring the participation of indigenous peoples and other stakeholders in NACEC biodiversity-related work.

2001	Estimated Resources Required (C\$)
Action 1: The Biodiversity Conservation Working Group will evaluate the Conservation of Biodiversity program and bring long-term guidance to it by finalizing a Strategic Plan	65,000
<ul style="list-style-type: none"> • Activity 1: Conduct public consultations of the draft Strategic Plan to ensure that stakeholders, including indigenous groups, have an opportunity to comment on the document 	15,000
<ul style="list-style-type: none"> • Activity 2: Convene a meeting of the Biodiversity Conservation Working Group to review and finalize the Strategic Plan 	20,000
<ul style="list-style-type: none"> • Activity 3: Edit, translate and publish the Strategic Plan 	30,000

Action 2: Begin implementation of Strategic Plan with the guidance of the Biodiversity Conservation Working Group	135,000
<ul style="list-style-type: none"> • Activity 1: Develop a mechanism for public participation, which ensures the involvement of stakeholders, including indigenous groups, and conduct activities that support implementation of the Strategic Plan, with a priority on capacity building 	60,000
<ul style="list-style-type: none"> • Activity 2: Identify stakeholders and steering committees (drawn from government, indigenous groups, academic and research institutes, national and local NGOs, the private sector and other interest groups) for the development and guidance of Regional Action Plans 	15,000
<ul style="list-style-type: none"> • Activity 3: Coordinate workshop(s) to develop the Regional Action Plans 	45,000
<ul style="list-style-type: none"> • Activity 4: Organize meetings to identify regional partners and financial mechanisms that will help support the Regional Action Plans 	15,000
Action 3: Develop a performance indicators framework to assess effects and track progress on the implementation of the Strategic Plan	20,000
<ul style="list-style-type: none"> • Activity 1: Establish an interdisciplinary, ecoregional, expert network to develop methodology and indicators for selected issues 	20,000
Total Resources Required	220,000

Public Participation

Public participation has been and will continue to be an indispensable component of each phase of this project. Efforts will be continued in coordination with JPAC and the National Advisory Committees to solicit public feedback and the active participation of various interest groups. It is important that this involve indigenous peoples along with other 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 NACEC in the area of biodiversity conservation;
- broadened involvement of indigenous peoples and other interested stakeholders in NACEC biodiversity conservation initiatives;
- Regional Action Plans developed and implemented in NACEC priority regions;
- institutional capacity-building needs of the regions identified;
- agreement on performance indicators, variables to be measured and scales to be used; and
- detailed ecosystem data from selected regions to assess for broader application at other priority regions.

An ecosystem monitoring initiative will be integrated into the implementation of NACEC's Strategic Plan for the Conservation of Biodiversity as a mechanism for evaluating environmental changes as well as institutional performance.

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 sectors will be involved in the development, implementation evaluation and review of the Regional Action Plans as well.

Linkages to other NACEC Projects

This project will continue to be carried out in consultation with numerous other NACEC programs to devise a holistic and modern approach to biodiversity conservation for NACEC. 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 2002

Overview

In 2002, the Biodiversity Conservation Working Group will convene to evaluate and provide guidance on the biodiversity work of NACEC. NACEC anticipates the continuation of capacity building and outreach activities, as well as the active participation of the public in biodiversity conservation initiatives. The implementation of Regional Action Plans will be ongoing and the monitoring system will be established.

2002
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: Conduct activities that support the implementation of the Strategic Plan, including those related to capacity building and outreach
<ul style="list-style-type: none">• Activity 4: 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 5: Develop financial mechanisms in priority regions

2003

NACEC 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

This project is intended to help protect North American bird populations. The North American Bird Conservation Initiative (NABCI) will enter its second year of implementation of its five-year national action plans.

Goals and Objectives

The goal of this project is to enhance cooperation among existing bird conservation organizations to achieve effective protection of birds in North America. The specific objectives for 2001 are as follows:

- Formalize a trinational coordination body for NABCI.
- 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.
- Support the administrative body responsible for designing and coordinating national actions within NABCI.
- Ensure long-term success of NABCI through the development of a financial mechanism.
- 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 was needed to coordinate the conservation of all bird species in North America. NABCI was launched in response to this need.

In 1996, the Council called for the formulation of an initiative and action plan for cooperative efforts to conserve North American birds based on common goals, objectives and perspectives. In 1999, this mandate was fulfilled with the creation of the NABCI Strategy and Action Plan. The Strategy and Action Plan delineates “broad strategies [that] are essential for the effective conservation of North American birds” and a specific Action Plan for NACEC to 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

NACEC'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 November 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 NACEC 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, NACEC 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 working draft map of Bird Conservation Regions of North America was created, based on the NACEC report *Ecological Regions of North America*. Outstanding issues were resolved and a decision was made to use this map for the next three years. After this three-year period, the map would be open to another round of revisions.

In 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. Going beyond the Guiding Principles of NABCI, a second meeting of North American bird conservationists will also be held in Querétaro, 14–16 February 2001, with the goal of producing a five-year NABCI plan with measurable objectives. Moreover, NABIN’s usefulness for NABCI participants was enhanced, and progress was made on enhancing NABCI Net by linking with the new NACEC information “portal.” To aid education and outreach activities of the various NABCI members as well as to support the fundraising efforts of NABCI, a NABCI brochure will be developed, published and released at the Querétaro meeting.

Actions 2001

Overview

In 2001, NACEC will continue its support of NABCI, with the emphasis 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.

2001	Estimated Resources Required (C\$)
Action 1: Facilitate the implementation of strategies and action plans developed in Querétaro	195,000
<ul style="list-style-type: none"> • Activity 1: Organize a meeting of the Trinational Steering Committee to formalize a trinational coordination body for NABCI, and review the national strategies and action plans 	10,000
<ul style="list-style-type: none"> • Activity 2: 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, and establishing the biological foundation for program integration within NABCI 	185,000
Action 2: Assist in fundraising efforts for financial support of NABCI	10,000
<ul style="list-style-type: none"> • Activity 1: Assist in establishing a fund for NABCI; continue fund-raising efforts for NABCI at the trinational and national levels 	5,000
<ul style="list-style-type: none"> • Activity 2: Help support fundraising efforts of NABCI national coordinators 	5,000
Action 3: Capacity building—help to build bird conservation capacity together with national communities and NABCI coordinators	30,000

Action 4: Further communication and outreach activities	10,000
<ul style="list-style-type: none"> • Activity 1: Develop a communication strategy and link conservation and ecological institutions that have information resources relevant to NABCI to NABIN 	8,000
<ul style="list-style-type: none"> • Activity 2: Promote the NABCI brochure 	2,000
Total Resources Required	245,000

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 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 country of North America, 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.

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.
- Improved collaborative tools for NABCI constituencies will be made available through the enhancement of the NABCI web site (NABCI Net) and NABIN, as well as through the development and promotion of a NABCI vision/marketing document.
- 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 NACEC Projects

Work on NABCI will proceed closely with that on the Species of Common Conservation Concern project, coordinating activities and actions related to SCCC birds. NAFEC support will be sought for NABCI priority actions at the level of the Bird Conservation Regions. The results of the Financing and the Environment project will aid in the development a financial plan for NABCI. Further development of the North American Biodiversity Information Network (NABIN) project will: a) be carried out in consultation with NABCI users so as to enhance the usefulness of NABIN, and b) include the potential linkages to conservation and ecological institutions involving NABCI, further broadening the information resources of NABIN. To enhance the information system for NABCI, NABCI Net will be linked with the NACEC information portal. NABCI will also work with the Law and Policy Program so as to develop joint legal initiatives and other instruments to benefit North American bird populations.

Actions 2002–2003

2002
Action 1: Support national steering committees and national coordinators to continue the implementation of national strategies and action plans
Action 2: Assist in fundraising efforts for NABCI at the trinational and national levels
Action 3: Continue to work together with national participants and NABCI coordinators to build bird conservation capacity
Action 4: Law and policy—stimulate the development of legal initiatives and other instruments to benefit bird populations
Action 5: Further communication and outreach activities
<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
Action 6: Develop a framework to evaluate NABCI performance and determine future work

2003

In 2003, NACEC will assess the evolution of NABCI as a self-sustaining initiative; support may shift from institutional/administrative to selected implementation actions.

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 (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.

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:

- launch a pilot initiative in support of the conservation of priority species appropriate for collaborative action; and
- enable Parties to undertake specific collaborative actions to conserve migratory and transboundary species of concern.

Rationale

The North American Agreement on Environmental Cooperation calls for action to encourage conservation of wildlife and its habitat, and specifically for 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, those that are threatened or endangered, or the ones that play a critical role in the functioning of ecosystems.

While each country values its biodiversity, differing regulatory schemes and jurisdictional boundaries complicate effective conservation efforts and call for close collaboration among wildlife agencies and other groups interested in conserving species of concern and critical habitat. In addition, a clear understanding of the conservation status of wildlife populations of concern will help determine conservation performance indicators for ecoregions.

Progress to Date

In 1999, representative officials from the three governments came to consensus on the species of common conservation concern to be studied. For this stage in the project, the Parties chose terrestrial avian and mammalian species. NACEC prepared a report drawing upon the inventories of national agencies (*Comisión Nacional para el Conocimiento y Uso de la Biodiversidad*—Conabio, the US Fish and Wildlife Service, and the Canadian Wildlife Service, among others) as well as additional information 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. The establishment of priorities for joint action in the recovery of threatened or endangered species and populations in North America will be aided by the development of this report. 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 NACEC Council as well as by the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. By the end of 2000, four major approaches were created to support partnerships and actions related to SCCC work. These approaches are:

- *the ecosystem approach*—given that nearly half of the 17 species selected were closely related to grasslands, a meeting was organized to identify key on-the-ground cooperative actions related to the conservation of selected grassland species;

- *funding leverage approach*—NAFEC, using the SCCC as one of the criteria to select projects for funding, subsequently funded a project that provides an economic incentive for hunting outfitters of Arizona to support Mexican wolf reintroduction efforts (the Mexican wolf, *Canis lupus baileyi*, is an endangered subspecies of the gray wolf, a species of common conservation concern);
- *an information clearinghouse approach*—the NACEC “biodiversity portal,” currently being developed, will incorporate SCCC information; and
- *a financial approach*—the Environment, Economy and Trade program area will have developed a report on investment opportunities and options in financial mechanisms related to biodiversity conservation and, in particular, habitat, including that of SCCC.

Actions 2001

Overview

The actions for 2001 will promote the recovery of identified priority species through the cooperation of stakeholders and the development of training, education, outreach and monitoring activities and initiatives.

2001	Estimated Resources Required (C\$)
Action 1: Hold meeting of a small group of key Canadian, Mexican and US officials and wildlife and conservation experts to identify and select priority actions for one or more of the species of common conservation concern	15,000
Action 2: Assisted by the list of species of common conservation concern and the above-developed rationale, initiate pilot project that will be the focus for trilateral cooperation	75,000
Action 3: Develop communication strategy to convey to the citizens of North America the importance of trilateral efforts to protect species of common conservation concern	10,000
Total Resources Required	100,000

Public Participation

A communication strategy will be developed to effectively disseminate information about the accomplishments of trilateral cooperation in conserving species of common conservation concern. Education programs will be geared toward involving the general public in conservation activities and increasing public awareness of the importance of such work.

Capacity Building

Through the organization of workshops, meetings, and training sessions, the development and the distribution of material related to species of common conservation concern, and the construction of a publicly accessible information clearinghouse to support capacity building continues to be a priority for this project. This clearinghouse will be developed as part of the overall “portal” for the biodiversity program.

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.

Expected Partners and/or Participants

The Canadian Wildlife Service, the *Dirección General de Vida Silvestre* for the *Instituto Nacional de Ecología*, the US Fish and Wildlife Service, the Trilateral Committee for Wildlife and Ecosystem Conservation and Management, as well as the Species Survival Commission (SSC) of IUCN are expected to play important developmental roles. Other sectors of society—such as academia, indigenous peoples, NGOs, as well as state and provincial governments—will become more prominent in the implementation stage of this initiative.

Linkages to other NACEC Projects

In the past, this initiative has helped prioritize geographical regions in North America for the Strategic Plan for the Conservation of Biodiversity. By the end of 2000, work with the Environment, Economy and Trade program in the identification of investment opportunities related to biodiversity conservation projects, such as the Species of Common Conservation Concern, will also be important in the conservation of these crucial migratory and transboundary species. In the future, the project will be increasingly linked to NABCI and relevant marine projects, including the gap analysis and the marine protected areas network.

Actions 2002–2003

2002
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 trilateral efforts to protect species of common conservation concern
<ul style="list-style-type: none">• Activity 2: Develop a web site in three languages
Action 3: Develop a framework for evaluating SCCC performance and determine future work on SCCC

2003

In 2003, NACEC will assess its involvement in the SCCC project based on the evaluation conducted in 2002.

2.1.4 Mapping Marine and Estuarine Ecosystems of North America

Project Summary

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

Goals and Objectives

The goal of the project is to provide a 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:

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

Rationale

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

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

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

Progress to Date

Lead personnel for marine bioregions have been identified from the three countries and have begun to work together to review the existing initiatives and assess the gaps found in current North American marine mapping. Through their communications with the Marine Protected Areas Network, mapping needs for MPAs have been identified and linkages between the two projects have been made.

This project builds on existing efforts in the three countries:

Canada: In 1996, Environment Canada, in cooperation with Fisheries and Oceans Canada and Parks Canada, refined a Marine Ecosystem Classification scheme for Canada, based on the mapping and classification concepts of the Canada Committee on Ecological Land Classification. It identified ecozones, ecoprovinces, ecoregions and ecodistricts in Canada. The ecozone level of classification was refined by the Canadian Council on Ecological Areas and constitutes the basis for its ecosystem representation and state-of-the-environment work. It is also used by the Canadian Wildlife Service as an ecosystem framework for its activities concerning Marine Wildlife Areas. The development of a national system of Marine Protected Areas in Canada recognizes the need for this type of classification through an “ecological overview” systematic planning approach (Fisheries and Oceans Canada MPA Framework). A detailed marine habitat classification system is being developed for the Pacific Ocean. A pilot project is also being conducted on the Scotian Shelf of the Atlantic Ocean to develop ecological classification. In addition, Environment Canada and Fisheries and Oceans Canada are developing a system of marine ecosystem health indicators.

Mexico: Mexico, through the *Instituto Nacional de Ecología* of the *Secretaría de Medio Ambiente, Recursos Naturales y Pesca* (National Institute of Ecology, INE-Semarnap) and in coordination with the *Dirección General de Acuacultura* (General Direction for Aquaculture, DGA-Semarnap), has conducted three coastal ecozoning programs at the state level (*Ordenamientos Ecológicos en Zonas Costeras*). Building on this experience, INE-Semarnap is working toward the definition of ecozoning criteria for a National Coastal Zoning Program. Additionally, INE-Semarnap is conducting a marine zoning program for the Sea of Cortez (*Ordenamiento Ecológico del Mar de Cortés*). In parallel to this effort, the *Instituto Nacional de Pesca* (National Fisheries Institute, INP-Semarnap) has been working on a characterization and evaluation of aquatic resources in coastal lagoons. In addition, both Conabio and INE-Semarnap are engaged in priority-setting activities for marine protected areas.

United States: The United States has developed the Aquatic Restoration and Conservation (ARC) Partnership led by the US Geological Survey and the National Oceanic and Atmospheric Administration. Its goal is to characterize and map freshwater, estuarine, and marine species, communities, and their habitats on a landscape scale. With this information, decision-makers and resource managers at local, state, regional, and national levels can evaluate aquatic resources and make more informed decisions about land and water resources. In addition, the Ecological Society of America organized a 1999 conference, mentioned above, to advance the process of defining consistent and comparable approaches throughout the United States, and a number of states have advanced classification schemes.

Actions 2001

Overview

A compilation of key issues, current approaches to and activities concerning marine and estuarine classification will be developed. A trinational Steering Committee is being created to guide the effort and ensure that the needs and efforts of all three countries are being considered. Based on the results of this compilation, a workshop will be held to exchange information and encourage consistent and comparable approaches to ecosystem, habitat and biodiversity classification and mapping, especially in shared ecosystems. The workshop will involve experts from the three countries, chosen based on their expertise and experience in marine and coastal ecosystem/habitat classification and mapping. Experts will include appropriate representatives from governments, academia, and NGOs.

2001	Estimated Resources Required (C\$)
Action 1: Identify and compile current approaches to marine and estuarine ecosystem and habitat classification	50,000
<ul style="list-style-type: none"> • Activity 1: Report compiling current approaches to marine and estuarine classification and exploring and summarizing key issues and current activities in North America; will serve as a background document for the workshop participants 	50,000
Action 2: Assist the development and implementation of consistent and comparable classification approaches, especially in shared ecosystems	65,000
<ul style="list-style-type: none"> • Activity 1: Hold expert workshop to identify major marine and coastal ecological regions and develop consistent, comparable classification approaches for major marine and estuarine ecosystem and habitat types 	65,000
Total Resources Required	115,000

Public Participation

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

Capacity Building

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

Expected Results

This project will bring together existing approaches for marine and coastal ecosystem and habitat characterization and mapping in Canada, Mexico and the United States, 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 will provide:

- identification and compilation of ongoing approaches, experts and databases in the three countries—this information compilation is the first step for any coordinated approach to gap analysis and will be in the form of a report that, once reviewed, will form the basis of the follow-up workshop;
- development of consistent and comparable approaches to marine and estuarine ecosystem and habitat classification, especially in shared ecosystems;
- production of a GIS-based map of major meso-scale marine and coastal ecological regions in North America with overlays of existing marine protected areas to outline the ecosystem and habitat classification systems and their nesting within the ecological regions in the three countries; and

- improved capacity of managers, planners, scientists, policy makers and other stakeholders to assess the nature, conditions and trends of the major marine and coastal ecosystems of North America.

Expected Partners and/or Participants

This initiative seeks to bring together the many organizations and agencies that are mapping the coastal and marine 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 Canadian Council on Ecological Areas, the Canadian Wildlife Service, Wildlife Habitat Canada, the National Oceanic and Atmospheric Administration, The Nature Conservancy (TNC), World Wildlife Fund (Mexico), as well as the World Commission on Protected Areas (WCPA) of the International Union for the Conservation of Nature (IUCN). It may also potentially link the *Instituto de Ecología de Xalapa* as well as the Benefits Beyond Borders initiative of IUCN.

Linkages to other NACEC 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 initiative. 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 Biodiversity Information Network (NABIN). 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.

Actions 2002–2003

Overview

For 2002–2003, an appropriate organization or contractor will be identified by the Parties to incorporate the available information gathered in the first year into a GIS map format. The GIS will be hosted and maintained by the Parties. The key outcome of this activity will be the production of a GIS-based map of major meso-scale marine ecological regions in North America with overlays of existing marine protected areas. The final report will outline ecosystem and habitat classification systems and show how habitats are nested within the ecological regions. The final product will also include the delineation of current marine protected areas in the three countries (note: this has already been accomplished for the United States). In this manner, the project will provide a first approximation that can identify ecosystem and habitat types that may not be adequately incorporated in current protected area systems.

The map and report on major meso-scale marine and coastal ecological regions will then be used in the development of a marine gap analysis. This activity will be closely linked to the work done through the North American Marine Protected Areas Network.

2002
Action 1: Publish final report
<ul style="list-style-type: none"> • Activity 1: Publish final report outlining habitat and coastal classification systems; describing the major coastal and marine ecological regions and show how habitats are nested within them
Action 2: Develop Geographic Information System (GIS)–based map of major meso-scale marine and coastal ecological regions (developed by Parties)
<ul style="list-style-type: none"> • Activity 1: Develop an ArcView (or ARC/INFO)–based map of major meso-scale marine and coastal ecological regions
<ul style="list-style-type: none"> • Activity 2: Overlay existing marine protected areas in North America (working in close collaboration with appropriate representatives from the North American Marine Protected Areas Network)

2003

This project will conclude with the development in 2003 of the North American GIS-based map.

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 Mapping working 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 coastal and marine ecosystems in North America

*Actions for 2003 will be developed in close collaboration with the project “North American Marine Protected Areas Network.” A portion of the requested amount will be assumed under this project; the rest will be requested under the MPA project.

2.1.5 North American Marine Protected Areas Network

Project Summary

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

Goals and Objectives

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

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

Rationale

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

While individually these 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 as they relate to specific species and uses. For example, geographically distant MPAs could be strategically designed and linked ecologically based on their importance in migratory patterns (e.g., gray whales) or in supporting different stages in the life history of important species (e.g., spawning, larvae, juvenile and adult). No single MPA can be large enough to protect ecologically important areas on a regional scale; however, a network of properly managed and coordinated MPAs can do so effectively and efficiently.

Progress to Date

In 1999, a background paper and a workshop on MPAs in North America were developed to advance the goals of understanding the ecological linkages and commonalities among existing North American MPAs. These two actions set a framework to build regional, national and international capacity to conserve critical coastal and marine habitats by sharing lessons learned, new technologies and management strategies.

The workshop, held during November 1999, also laid the groundwork for the production of a North American MPA action plan. The comprehensive and holistic Action Plan Framework, developed with the guidance of NACEC-MPA

Steering Committee as well as with the input from the participants of the November 1999 La Paz workshop and other interested parties, includes key issues and effective approaches that needed to be addressed by a North American MPA Network. The Action Plan Framework laid out seven key areas: 1) evaluating economic benefits of MPAs; 2) defining marine bioregions of North America; 3) formulating guidelines for measuring MPA effectiveness; 4) developing integrated management planning; 5) expanding applied research for MPAs; 6) encouraging an “ocean ethic” based on an appreciation for the intrinsic values of the ocean ecosystem; and 7) developing protection standards.

To better achieve concrete results, and so that the action plan could serve as a pilot study for future work in other North American marine regions, the NACEC-MPA Steering Committee concluded that implementation of the Action Plan Framework should be focused on a region where there are shared conservation objectives among the three participating countries. Given the obvious ecosystem linkages on the Pacific Coast of North America, the Steering Committee recommended that this project focus in the Baja California to the Bering Sea region—one of NACEC’s priority regions—and, by year-end, an MPA workshop for that region will have been organized in collaboration with the Canadian Parks and Wilderness Society. In conjunction with NACEC’s sustainable tourism initiative, work on evaluating the economic benefits of MPAs has also started with the organization of a regional workshop in the Baja to Bering region as well as a market study on nature-based tourism, including tourism in MPAs. These activities will help to increase awareness that protected resources can translate into economic, social and environmental benefits, reinforcing the case to local communities and others that MPAs can be engines or triggers for economic development.

Lead personnel from the three countries for the marine bioregions priority area have worked with the Mapping Marine and Estuarine Ecosystems of North America project in mind to ensure linkages between both projects. The group has focused on reviewing existing initiatives and assessing the marine mapping needs of each country. By year-end, lead personnel and trinational, multi-sectoral working groups for these priority areas will have been established, and work on all of the cross-cutting initiatives to enhance the marine environment will be well underway.

Additionally, through the creation of the Marinet web site <www.crossdraw.com/marinet>, the participants at the 1999 La Paz workshop, as well as other interested parties, have been invited to participate in a permanent alliance of MPAs throughout North America. This alliance shares critical information to improve the efficacy of marine biodiversity conservation efforts at the regional, national and international levels.

Actions 2001

Overview

Priority-area cross-cutting conservation initiatives determined by the results of the 1999 La Paz workshop will continue to be implemented. The close link with the Mapping Marine and Estuarine Ecosystems of North America project will also be continued, preparing the ground for a joint GIS mapping and marine gap-analysis initiative in 2002.

2001	Estimated Resources Required (C\$)
Action 1: Implement North American MPA Action Plan	130,000
<ul style="list-style-type: none"> • Activity 1: Undertake 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 	130,000

Action 2: Participate in Mapping Marine and Estuarine Ecosystems of North America project activities	8,000
<ul style="list-style-type: none"> • Activity 1: Coordinate and participate in workshop to identify major marine and coastal ecological regions 	8,000
Total Resources Required	138,000

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 nongovernmental organizations involved in marine protected areas will be consulted for their input into establishing linkages. As the process evolves, general outreach materials will be developed for explaining to a broad audience the benefits that will accrue to marine biodiversity from 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.

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), National Oceanic and Atmospheric Administration (NOAA), *Secretaría de Medio Ambiente, Recursos Naturales y Pesca* (Semarnap), *Instituto de Ecología de Xalapa*, The Nature Conservancy (TNC), World Wildlife Fund (Canada and Mexico). WCPA North America of IUCN also plays a key partnership role: preliminary discussions have taken place for the coordination of the North American marine sector of WCPA with the NACEC-MPA initiative. Although too numerous to mention here, other partners for this project, developed in part from the 1999 North America MPA and the 2000 Baja to Bering meetings as well as the subsequent outreach efforts, include MPA managers, governmental agencies, NGOs, and academia. In the future, local communities, indigenous groups and the private sector will be increasingly involved.

Linkages to other NACEC Projects

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

This project is also very closely linked to the project on Strategic and Cooperative Action for the Conservation of Biodiversity in North America. The results of the November 1999 MPA workshop have been included in the process of developing the Strategic Plan for the Conservation of Biodiversity; the results of the Expert Workshop on Priority Regions were taken into account in the development of a regional approach for many of the priority MPAs; via the

initiative Strategic and Cooperative Action for the Conservation of Biodiversity in North America, indigenous group participation will be included in the MPA network; and working with the Environment, Economy and Trade program, sustainable tourism in MPAs may become a potential enabling tool for regional conservation.

The North American Marine Protected Areas Network project is also linked to three other NACEC projects: Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities, North American Pollutant Release and Transfer Register (PRTR), and Sound Management of Chemicals (SMOC). NACEC has worked since 1996 on implementing the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in two binational coastal regions in North America: the Gulf of Maine and the Bight of the Californias. Preliminary discussions have taken place concerning a collaborative effort involving PRTR and the Bight of Californias GPA initiatives. Additionally, Council Resolution 99-02 concerning SMOC calls for the development of a North American Regional Action Plan on Environmental Monitoring and Assessment. MPAs are ideal sites to establish monitoring baseline sites. Via policies, agreements, and initiatives, the GPA, PRTR and SMOC initiatives could be linked to the MPA Network so as to preserve the ecological integrity of a region, potentially one of the priority regions of the Strategic Plan for the Conservation of Biodiversity.

Actions 2002–2003

2002
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
<ul style="list-style-type: none"> • Activity 2: Support coordination, development and training activities related to the priority areas
Action 2: Participate in Mapping Marine and Estuarine Ecosystems of North America project activities
<ul style="list-style-type: none"> • Activity 1: Coordinate and participate in workshop to identify major marine and coastal ecological regions

2003

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 Mapping working 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 coastal and marine ecosystems in North America

*Actions for 2003 will be developed in close collaboration with the project “Mapping Marine and Estuarine Ecosystems of North America.” A portion of the requested amount will be assumed under this project; the rest will be requested under the mapping project.

2.1.6 Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in North America

Project Summary

This project seeks to protect marine and aquatic ecosystems from the effects of land-based human activity. The two transboundary GPA pilot efforts are in their final stages of transition in this last year of support from NACEC, which has been extended one year.

In an effort to explore ways to protect the marine environment, NACEC has been facilitating regional implementation of the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities in North America. NACEC has been working with agencies, private industry and citizen groups to develop binational pilot efforts to protect marine and coastal ecosystems consistent with the GPA in the Bight of the Californias and the Gulf of Maine—two transboundary coastal areas. Hence, for its last year, work in the regions will be concentrated on firmly establishing the GPA.

Goals and Objectives

The goal of this project is to protect the marine environment by facilitating regional pilot projects on GPA implementation. In their last year supported by NACEC, the GPA initiatives are finalizing their transition from NACEC to the regions.

Rationale

A priority concern to Canada, Mexico and the United States is the cooperation to maintain and enhance the quality of the marine environment. The importance of the marine environment has also been recognized in the Council's *A Shared Agenda for Action*, which states that: "North Americans are trustees of an amazing range of terrain, climate and *marine* and terrestrial ecosystems" (emphasis added).

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

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

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

Progress to Date

Since the project's inception in 1996, multisectoral, binational, organizational infrastructure has been established in both regions; regional action plans have been developed and implementation has commenced; through web pages, listserves, brochures and numerous reports, the exchange of information between the stakeholders has been facilitated; and regional experiences have been consolidated and shared with other regions and worldwide.

To date, both GPA regional projects have established binational, multi-stakeholder coalitions of individuals, representing federal, state and local agencies, nonprofit organizations, the academic and private sectors, and

indigenous groups. They have also developed regional plans for GPA implementation, through the application of the GPA methodology, and a preliminary identification of partnerships and funding sources for the implementation activities.

Gulf of Maine

Since the formation of Global Programme of Action Coalition (GPAC) in the summer of 1997, a significant program of consensus building, strategic planning, and project implementation has been accomplished, largely through the voluntary efforts of all members. GPAC has become a strong, animating force in the region, challenging, supporting and inspiring the activities of its members and others that come within its sphere of influence.

In a little over three years, GPAC has completed the following measurable achievements:

- six cross-sectoral, binational meetings of the Coalition;
- two major binational, multi-sectoral workshops;
- seven comprehensive scoping papers on conditions in the region related to pollution and habitat disturbance;
- consensus on fifteen priority environmental issues common throughout the Gulf of Maine region;
- development of targeted strategies to address these issues;
- implementation of five pilot projects in response to these strategies;
- strategic assessment of GPA targets in the Gulf of Maine; and
- ongoing interaction and information sharing with the Bight of the Californias sister pilot project.

As a result of the interactive work by this group of highly committed individuals, there has been considerable advancement in the development of four critical elements for GPA implementation:

- a base of critical scientific information on the Gulf Region's natural systems and built environments;
- strong collegial relationships among key scientists, decision-makers and advocates, both internal and external to the Region;
- consensus on the scope of the GPA in the Region, and the priority issues for action; and
- a base of over 350 persons, from all sectors of the community, who have voluntarily participated in some aspect of the GPAC activities in the Region, representing a considerable resource for future advancement of the GPA.

In its short history, GPAC has achieved significant measurable progress in implementation of the first steps of the GPA methodology in this region. The GPAC work has also advanced the Gulf of Maine (GoM) Council's Action Plan (1996–2001) by implementing specific actions related to priority regional pollutant and habitat issues. Members of the GoM Council's Working Group participate in GPAC and it has been a mutually beneficial partnership. Recognizing the benefits of continued collaboration, the GoM Council is prepared to integrate the GPAC work into the development of its next Action Plan (2001–2006). The GoM Council also plans to utilize GPAC as a key mechanism for engaging broad stakeholder input into its next Action Plan and has asked to be presented with a proposal to formally establish GPAC as an advisory body to the GoM Council at its December 2000 meeting.

Bight of the Californias

Over the first four years of the pilot project, the Ad Hoc Committee achieved many of its short and mid-term goals. One of the most significant accomplishments to date has been the relationship building that has occurred across sectors, across disciplines and across borders. Friendship and trust have been nurtured, which in turn has fostered dialogue, collaboration and mutual understanding.

This is perhaps best displayed in the Bight-wide monitoring effort, the first of its kind in the region. On another front, a strong commitment has been made in the region through a significant level of direct and in-kind support by various agencies and organizations, which has augmented the funding support of NACEC. Finally, a strong regional institutional base has now been established from which local implementation of the principles of the GPA can be promoted long into the future. Other notable progress is as follows:

- Inventories of regional activities consistent with the GPA were prepared and made available on the Bight of the Californias web site (these data are currently being updated and the inventory redesigned).

- Bight-wide water quality monitoring was initiated. This is the first binational effort in the region and required technology transfers, inter-calibration of instruments, and development of comparable data for both sides of the border. This monitoring partnership is ongoing.
- A Geographic Information System (GIS)–based Point and Nonpoint Source Inventory of coastal contamination has been initiated. Two technical working groups have been formed on either side of the border and maintain regular communication and coordination. Outside funding has been garnered for implementation of the project on both sides of the border. Eventually, the project will produce a series of binational maps showing various attributes related to land-based sources of marine pollution.
- A bilingual information pamphlet was prepared for decision-makers, academia, the business sector and the public-at-large. It describes the GPA and provides a general discussion of NACEC and the Bight of the Californias pilot project, along with descriptions of the participating agencies, the project’s purpose, objectives, accomplishments to date, and proposed activities. This pamphlet is being distributed to educate the local stakeholders and spawn interest in the project.
- Six Ad Hoc Committee meetings have been held, alternating between Mexico and the United States, and a Binational Executive Committee has been formed that meets approximately every six weeks.
- Surveys were conducted regarding habitat and contamination source priorities.
- A Regional Action Plan was drafted and is being implemented.
- The web site for the project, originally hosted on the NACEC homepage, has been moved to <http://www.sandag.cog.ca.us/bight/>. The site will be redesigned, updated and maintained there.

A listserv (PACIFICO) was created specifically for this pilot project and is used to maintain communication with the Ad Hoc Committee.

Participation and interaction with the Gulf of Maine sister pilot project has continued since the inception of the project.

Lessons learned report sharing experience gained

A lessons learned report will have been drafted by the end of 2000 and shared with stakeholders in both regions, with the United Nations Environment Programme (UNEP), as well as with other interested parties in transboundary regions of North America where there is potential for those regions to begin similar undertakings on their own.

Actions 2001

Overview

Support of the GPA in the Bight of Californias and the Gulf of Maine extends an additional year to help better establish the GPA in the regions.

2001	Estimated Resources Required (C\$)
Action 1: Ensure and consolidate transition of program from NACEC to the regions	80,000
<ul style="list-style-type: none"> • Activity 1: Secure transition of program from NACEC to the Bight of the Californias region and seek Global Environment Facility (GEF) partnership 	40,000
<ul style="list-style-type: none"> • Activity 2: Secure transition of program from NACEC to the Gulf of Maine region 	40,000
Total Resources Required	80,000

Public Participation

Public participation has been fundamental for the implementation of the GPA in both regions. The ad hoc committees that assist in the implementation of the GPA in each region broadly represent environmental, economic

and social interests, and provide a first opportunity for meaningful public participation for the protection of the marine environment. The organization of workshops extends this opportunity to a broader audience. Efforts to further involve the public-at-large include the production of outreach materials and the development of communication tools, such as bulletins and web sites.

Capacity Building

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

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

Expected Results

Upon the completion of these activities to implement the GPA in North America, NACEC will have established a framework for regional cooperation for the protection of the marine environment in the Bight of the Californias and the Gulf of Maine. In implementing the GPA, NACEC will have developed a regional model for cooperation.

In particular, this project will yield the following results:

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

Expected Partners and/or Participants

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

Linkages to other NACEC Projects

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

- Mapping Marine and Estuarine Ecosystems of North America project: This project will provide a geographic biodiversity North American context for finer-scale activities in the Bight of the Californias and the Gulf of Maine. The mapping project can also benefit from the experience in coastal and marine classification systems that have already been undertaken in both regions by local institutions.

- North American Marine Protected Areas Network: Experience in dealing with MPAs in a binational context from both regions will be used in the development of the MPA initiative.
- North American Pollutant Release and Transfer Register: One of the projects that has been initiated in the Bight of the Californias using US Agency for International Development funds is the development of a binational GIS-based point and nonpoint source inventory. This initiative will be helpful for the North American Pollutants Release and Transfer Register project efforts to estimate North American emissions from nonpoint sources. Preliminary discussions have taken place concerning a collaborative effort involving PRTR and the Bight of Californias GPA initiative.

Actions 2002–2003

NACEC anticipates concluding project work in this area but will continue pursuing GEF partnership in 2002.

2.1.7 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 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 distinct North American aquatic ecoregions: the Pacific Coast, the Gulf of Mexico, the Atlantic Coast, and the Great Lakes. The project will also examine pathways between major drainage basins.

Rationale

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

By the end of 2000, a workshop will have been organized to assess existing capacities and mechanisms to prevent and control invasions via the primary regional pathways (e.g., ballast water, aquaculture, recreational boating, etc.).

Actions 2001

Overview

2001	Estimated Resources Required (C\$)
Action 1: Follow-up 2000 invasive species workshop	40,000
Action 2: Develop cooperative mechanism to address invasive species concern	40,000
Total Resources Required	80,000

Public Participation

The public 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, ranging from reports outlining gaps in regional prevention and control capabilities, project designs for multilingual prevention and control at the regional scale, increased access to ecologically critical information, and, most importantly, reduced risks of future invasions by alien species. Information supporting and/or arising from this effort will be made available through the North American Biodiversity Information Network (NABIN).

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.

Linkages to other NACEC Projects

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

- Mapping Marine and Estuarine Ecosystems of North America;
- North American Marine Protected Areas Network; and
- North American Biodiversity Information Network and, in particular, NABIN's collaborative initiative with the Inter-American Biodiversity Information Network (IABIN) on invasive species.

Actions 2002

2002
Action 1: Continue the development of cooperative invasive species mitigation, education, prevention and control measures
<ul style="list-style-type: none">• Activity 1: In coordination with NABIN, develop targeted, multinational, multilingual invasive species mitigation, education, prevention and control measures for a priority region

2.1.8 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 publicly accessible and free.

NABIN is also developing an application dealing with invasive species. This important initiative will contribute greatly to protecting the marine, aquatic and terrestrial ecosystems from the effects of one of the greatest threats facing North America's ecosystems.

The project also addresses issues related to the development of NABIN such as data standards and protocols for the exchange of information. NACEC 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.

The development and implementation of NABIN is a long-term project that will require ongoing input. Continued NACEC stewardship through the year 2003 would ensure that the project maintains its trinational perspective and objectives. It will also contribute to the implementation of trinational strategies for public participation and information dissemination.

Goals and Objectives

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

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

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

Rationale

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

There is no comprehensive understanding at the North American level of what biodiversity data exist, where and how reliable they are, and how they may be accessed. Existing biodiversity data are scattered in various formats and only sometimes documented. Numerous initiatives by federal, state, provincial and nongovernmental agencies are underway to develop national and global environmental databases, including information on species and other natural resources, information management standards and different systems of taxonomic classification. There is no effort to identify the existence of a data set and the means to acquire access to it on the North American level. NABIN seeks to fill this void.

Sharing and accessing biodiversity data at such a broad level can help avoid classification conflicts and facilitates more coherent, cooperative actions. It will also produce economies of scale and avoid duplication of effort. Finally, a regional initiative will enable North America to provide leadership in global efforts to make biodiversity information better organized and more accessible.

Invasive species

Although bioinvasions can originate from anywhere, increasing trade and transportation within North America raises the risk of expanded transboundary introductions of alien species among the neighboring NAFTA countries. The creation of an application within NABIN dealing with invasive species is an important step in combating future harmful introductions between Canada, Mexico and the United States, as well as developing a predictive tool on distribution patterns.

Progress to Date

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

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

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

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

In 2000, the Species Analyst was connected to Environment Canada's EMAN (Environmental Management and Assessment Network), offering users access to NABIN's first observational data set. An Invasive Species collaborative partnership with the World Bank, the US Geological Survey (USGS) and IABIN has been initiated. Moreover, two NABIN-related proposals have been completed and submitted to the National Science Foundation (US): 1) Bt-Corn and Monarch monitoring, and 2) a nationwide citizens' science project (first K-12 capacity-building initiative). Furthermore, the Integrated Taxonomic Information Initiative has requested to use NABIN as the trinational coordinating forum. The database currently contains information on birds and fish.

Actions 2001

Overview

The primary objectives of NABIN during 2001 will be to integrate use of Species Analyst with other NACEC projects, enhancing the quality of their data sets and information resources. For example, NABIN will cooperate with the North American Bird Conservation Initiative (NABCI) by linking it with Species Analyst. As a result of this collaboration, NABCI participants will have a resource of immediate value to assist them. NABIN will continue to collaborate with other national and international initiatives. First, NABIN will offer its knowledge and expertise to IABIN, to optimize resources and projects of benefit to the North American region. An example of this ongoing collaboration is a grant of US\$50,000 from the World Bank under the aegis of IABIN to train systems' personnel in the implementation of NABIN technology. Another example will be NABIN's participation in an IABIN invasive-species pilot project. NABIN technology will allow users to interconnect databases on invasive species and undertake geospatial analyses of the data. The databases will include information on aquatic and terrestrial invasive species and the institutions that provide it. A list of invasive species experts from the three countries will be created. The geospatial analysis will include mapping of marine and terrestrial ecosystems, species at risk, and the major pathways of aquatic invasive species to support reduction and control efforts. The possibilities of interconnecting sources of information (such as web sites) related to the existing education and outreach efforts on aquatic invasive species reduction and control will be explored, and their gaps analyzed. Additional funding sources will be sought to pursue the policy issues identified, including the augmentation of NABIN predictive capacity as applied to invasive species.

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 development of the Species Analyst, new institutions will be connected, NGOs will be invited to participate (most notably, The Nature Conservancy) and new taxonomic information tools such as the Integrated Taxonomic Information System will be made available to the public.

2001	Estimated Resources Required (C\$)
Action 1: Support other NACEC programs, where appropriate	22,000
<ul style="list-style-type: none"> • Activity 1: Interconnect NACEC project data with NABIN (PRTR, Air Quality, Emerging Trends) 	22,000
Action 2: Increase collaboration and participation in international biodiversity activities in North America.	105,000
<ul style="list-style-type: none"> • Activity 1: Increase knowledge-sharing with IABIN and develop joint initiatives for North America 	7,000
<ul style="list-style-type: none"> • Activity 2: Develop a predictive application on invasive species 	74,000
<ul style="list-style-type: none"> • Activity 3: Assist in the development of other international initiatives by offering NABIN expertise and technology 	14,000
<ul style="list-style-type: none"> • Activity 4: Assess the feasibility of developing a NABIN application to predict the impact of Global Climate Change on biodiversity indicators 	10,000
Action 3: Support the ongoing development of Species Analyst and <i>Red Mexicana de Información sobre Biodiversidad</i> (REMIB), ensuring that further developments in software are shared	70,000
<ul style="list-style-type: none"> • Activity 1: Increase institutional consensus and data integration by meeting with institutional representatives and policy makers; continue support of and interconnection with the Integrated Taxonomic Information System (ITIS) and other similar systems 	20,000

<ul style="list-style-type: none"> • Activity 2: Interconnect other institutions to Species Analyst, particularly those rich in North American biodiversity information 	20,000
<ul style="list-style-type: none"> • Activity 3: Initiate discussion with NGOs (TNC, World Resources Institute, etc.) to interconnect their information resources to the Species Analyst, thereby fostering collaboration among the museum and conservation communities, including the US Department of Agriculture, the Missouri Botanical Garden, and the Field Museum of Natural History in Chicago 	20,000
<ul style="list-style-type: none"> • Activity 4: Initiate discussion with First Nations on the interconnecting of indigenous and traditional knowledge; utilizing indigenous community-run information networks such as the Indigenous Biodiversity Information Network (IBIN) 	10,000
Total Resources Required	197,000

Public Participation

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

Capacity Building

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

Expected Results

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

In the year 2001 phase of this ongoing project, efforts will be directed toward incorporating other taxa into the distributed query system. In this manner, the system will offer:

- a predictive tool to combat the introduction and spread of invasive species
- a holistic 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 analysis;
- more optimal use of NACEC project data and information;
- unrestricted access to North American biodiversity information; and
- interconnection to other types of data.

Expected Partners and/or Participants

In the creation of a North American and worldwide 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 initiatives such as Species 2000, the Integrated Taxonomic Information System (ITIS) and the Global Biodiversity Information Facility (GBIF).

Linkages to other NACEC Projects

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

Actions 2002–2003

NACEC anticipates continuing work in this area in 2002 and 2003. Generally, the project will be oriented toward:

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

POLLUTANTS AND HEALTH

Goal

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

This program area aims to pursue the following objectives:

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

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

Program Initiatives

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

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

Goals and Objectives

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

The objectives include:

- fostering a greater awareness and understanding of the air quality management systems in North America;
- promoting compatibility in approaches to air quality management;
- establishing a regular exchange of technical information and air quality improvement strategies among North American air quality management officials; and
- improving the overall capacity of air quality management.

Rationale

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

Progress to Date

The CEC has initiated an annual meeting of North American air pollution management officials, a technical exchange program, and the maintenance of an air quality web site. The result of a US-Mexico technical exchange was the development of guidance manuals for ambient monitoring networks in Mexico and a meeting of US and Canadian modelers facilitated preparations for the addition of a particulate matter annex to the US/Canada air quality agreement. The CEC also funded the development of the North American component of an international air quality web site. When fully developed, the public will be able to access air quality information in a number of ways, including by location, by topic, and by pollutant. The CEC also supported efforts to include fine particulate data from Mexico City for discussion at an international aerosol symposium held in October 2000 in Querétaro, Mexico. The symposium included participation from Environment Canada, the US Environmental Protection Agency (EPA), the US Department of Energy, and Semarnap.

About 200–220 officials from all three countries attended the first annual meeting of North American air pollution management officials, held in April 2000, in Asheville, North Carolina.

Actions 2001

Overview

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

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

In late 1998 and during 1999, efforts were begun on the development of a comprehensive report, *The Air Pollution Management Systems of the Countries of North America*. This report will foster a greater awareness and understanding of the other countries' air quality management systems. The improvement in understanding will broaden the ability of the entities involved in air quality matters within each of the countries to work in cooperation and coordination with their counterparts in the other North American countries. Currently, the report is undergoing internal review and editing, and the final report should be available in 2001.

North American Air Quality Web Site

During 2000, the CEC partnered with the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO) to co-sponsor the development of a web site dedicated to provide needed information on air quality related matters. The CEC envisions that the site will provide a solid basic understanding of the air quality management systems employed in North America. Through an organized index of electronic links to other sites and databases, this site will provide the user with a single location to investigate many aspects of air quality management in North America. This will create greater opportunities for decision makers, scientists, and the public to become better informed, and enable the public, particularly, to participate more meaningfully in the available decision-making processes. Activities in 2001 will center on providing funds to maintain and refine the website with the goal of continually updating the site as new air quality information becomes available.

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

The first meeting of North American air pollution management officials was held in Asheville, North Carolina in April 2000 in conjunction with the spring meeting of STAPPA/ALAPCO. The CEC envisions holding future meetings on an 18 month to two-year cycle, with meeting locations rotating among the three countries of North America. The CEC will provide support for a 2001 meeting to be held in Canada. Plans for a Mexican venue will be begun in preparation for a meeting in 2002 or 2003. The meetings of North American air pollution management officials will provide opportunities for the sharing of air quality improvement strategies and technical/technological information on specific issues of concern to the three countries. Such opportunities for professional interaction will also help develop scientific collaboration between the staff of the various agencies. The CEC will work with STAPPA/ALAPCO and others to identify specific and timely issues for a focused discussion of best practices and exchange of information at each meeting.

Capacity Building for Air Quality Professionals

This program will improve the overall capacity of air quality management within North America through the exchange of technical and strategic knowledge. 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.

With input from the Parties, the CEC identified the area of smog forecasting, coupled to public outreach at the local/municipal, state/provincial, and federal levels, as areas requiring attention. In 2001, the CEC will initiate efforts to bring together relevant air quality staff from each of the North American countries to exchange technical information on best practices in smog forecasting techniques. The CEC will also seek an exchange among the air quality professionals on their local, state or federal experiences in developing the most effective outreach methods for informing the public of forecasted high pollution episodes and measures the public and industry can take to help reduce the severity of the event.

Development of an Association of Mexican Air Quality Professionals

The inaugural meeting of North American air pollution management officials demonstrated the value of forming associations of air quality professionals such as STAPPA/ALAPCO. Mexican air officials at all levels of government have indicated a special interest in the establishment of a Mexican air pollution association, and have requested CEC assistance in this endeavor. To this end, the CEC in 2001 will be exploring the establishment of a network of air quality officials, air experts and research staff in Mexico. By leveraging on current initiatives, the CEC may assist in facilitating cooperation, coordination, and collaboration between air officials and others in the three countries.

2001	Estimated Resources Required (C\$)
Action 1: Follow-up to <i>The Air Pollution Management Systems of the Countries of North America</i>	15,000
Action 2: Maintain North American air quality web site	10,000
Action 3: Provide support for meeting of North American air pollution management officials	61,000
• Activity 1: Assist in selection of specific discussion issues and development of agenda	
• Activity 2: Provide for interpretation at meeting	
• Activity 3: Facilitate attendance by Canadian, Mexican, and US officials	
• Activity 4: Secure venue and prepare for 2002 or 2003 meeting	
Action 4: Support for exchange program on smog forecasting for air quality professionals	75,000
Action 5: Development of an association of Mexican air quality professionals	80,000
Total Resources Required	241,000

Public Participation

The foci of these activities are to increase partnership among air quality officials and scientists. Nonetheless, they create the opportunity for the public to become more informed and better able to be involved in public policy issues related to transboundary air pollution through the establishment of a North American air quality web site.

Capacity Building

Greater exchange of information and experience among air quality officials will increase the overall quality, availability and accessibility of air quality data within North America. This will greatly expand the present capacity for cooperative air quality management throughout the North American region.

Expected Results

Upon the completion of these initiatives, 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, Canadian Council of Ministers of the Environment (CCME), Semarnap (through INE and Profepa), Mexican State and Municipal Air Pollution Control Agencies, US EPA, State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO).

Actions 2002–2003

Overview

North American Air Quality Web Site

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

Annual Meeting of North American Air Pollution Management Officials

The CEC will help support a third meeting of North American air pollution management officials at a yet-to-be-determined venue in Mexico during 2002 or 2003. This meeting of North American air pollution management officials will provide opportunities for the sharing of air quality improvement strategies and technical/technological information on specific issues of concern to the three countries. Such opportunities for professional interaction will also help develop scientific collaboration between the staff of the various agencies.

Development of an Association of Mexican Air Quality Professionals

The CEC will continue efforts begun in 2001 to establish a network of air quality officials, air experts and research staff in Mexico. By leveraging on current initiatives, the CEC may assist in facilitating cooperation, coordination, and collaboration between air officials and others in the three countries. The CEC envisions working with through a liaison to facilitate establishing and convening the Mexican association, with initial funding for the first two years from the CEC. After the association is established, the CEC expects the association to pursue and obtain continuing operational support from other sources.

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 the effectiveness of pollutant reduction strategies as well as highlight best practices. The project will also focus specifically on the fundamental need to develop comparable criteria pollutant emissions inventories across the three countries. This would set the stage for developing consistent inventory inputs for many analytical methods used to assess air quality impacts in North America, including investigating linkages between air pollution and children's health. It will also enhance public access to criteria pollutants information on a continent-wide basis.

Goals and Objectives

The goal of this project is to stimulate the development of technical tools and databases that have trilateral applicability to planning efforts such as pollution reduction programs in North America. As a first step, the project will build on existing regional efforts to develop comparable criteria pollutants inventory data, and establish the framework for extending these efforts to continental scale.

Rationale

Air is a medium that necessitates environmental action across the borders of the three North American nations. Credible and accurate information is crucial to addressing pollution problems within transboundary airsheds. In order to facilitate effective cooperative efforts, reliable information is needed on the characteristics and dynamics of transboundary airsheds, the interaction between airsheds, and the movement through the atmosphere of pollutants emitted into the environment. The promoting of effective tools and strategies to address specific pollutants can help jurisdictions in North America advance on improving air quality. In 1996, the NACEC Council 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 NACEC (Council Resolution 96-05). Consistent with these goals, there is an interest in collectively presenting information on emissions of criteria air pollutants (e.g., sulfur dioxide, nitrogen oxides and particulates) on a comparable basis across North America.

Progress to Date

During 1999, NACEC partnered with the Center for the Biology of Natural Systems at the City University of New York to develop an initial dioxin inventory for Mexico and, in combination with the existing inventories in Canada and the United States, to then model the impact of those continental emissions within the polar region of North America. The purpose of this activity was both to determine the efficacy of the Hysplit model for use on a continental scale and also to identify the major pollutant source areas through back apportionment of the deposition. As well, during 1999, NACEC worked with the Mercury Policy Project to develop a working paper that describes the best known programs for reducing mercury from public and private wastestreams. The working paper addresses barriers that might be encountered in efforts to replicate those programs and provide recommendations for how they might be overcome. This information will be made available to federal, state/provincial, and municipal/local levels of government, as well as to private businesses and public environmental groups within North America. In addition, during 1999, NACEC partnered with the National Oceanic and Atmospheric Administration (NOAA) for the development of a mercury chemistry module for the Hysplit model. NACEC also collaborated with the *Colegio de la Frontera Norte* in Tijuana, Mexico, to develop a GIS-based emission inventory for the communities of Rosarito, Tijuana and Tecate. NACEC continued to pursue the development, during 1999, of a stakeholder-based organization intended to lend focus to the air quality issues within the San Diego–Tijuana/Rosarito air shed. This focus was shifted so the organization, known as the Air Alliance, will serve in an advisory capacity to the state and federal government air pollution control agencies on both sides of the border.

Actions 2001

Overview

North American Criteria Pollutants Emissions Report

This project will seek to increase comparability of criteria pollutants emissions data among the three countries. It will result in a report based on an appropriately recent inventory year that presents an overview and analysis of criteria air pollutants emissions across North America.

Specifically, the project will:

provide, consistent with the pollutant release and transfer register reporting cycle, an annual (or some other appropriate time interval) overview and analysis of North American criteria pollutant data;

undertake special analyses that make use of criteria pollutants data (and other relevant information) to gain further insight into pollution-related issues of particular interest in North America;

enhance the utility of criteria pollutants inventory data to citizens, communities, industry, government, and other interested parties by highlighting outputs of the national programs, facilitating access to information, finding ways to enhance understanding of the criteria pollutants data, and exploring opportunities for using the data in combination with other relevant data (e.g., health, environmental, demographic, economic);

enhance comparability among the North American criteria pollutants emissions inventory systems,

obtain a more comprehensive picture of criteria pollutants in North America by identifying and analyzing existing data on sources; and

begin exploring and developing necessary electronic linkages to databases where air quality officials and other interested parties can obtain criteria pollutants inventory data on a continent-wide basis.

Due to limited resources, the initial report is not likely to cover the full range of criteria pollutants. A workgroup composed of inventory experts in the governments from each country will be convened for selection of a subset of criteria pollutants that will be consistent with the available resources. A proposed option for selection would be to consider criteria pollutants that affect asthmatic children. This would provide a foundation for future studies that seek to investigate linkages between criteria pollutants and respiratory diseases in children, and would be responsive to NACEC Council Resolution 00-10 on Children's Health and the Environment. Potential candidates among the criteria pollutants could include sulfur dioxide, nitrogen oxides, and particulates.

Producing a report on continental criteria pollutants emissions will require cooperation among the member countries to develop compatible methods of organizing and presenting the information. For example, in addition to the initial selection of the desired subset of criteria pollutants, the countries will need to decide upon the appropriate inventory year, the aggregation level for the data, the units for reporting the data, the type of sources covered in the inventory, and mutually consistent source categories for compiling criteria pollutants emissions across source types.

The project will foster further cooperation among the three countries in presenting emissions data already collected within each country in a comparable and consistent manner. This will also promote public dissemination and understanding of criteria pollutants emissions within North America. Furthermore, a continental-scale criteria pollutants inventory will be invaluable in assessing emission trends on a continental basis resulting from the air quality programs in each country. This can have further applications in investigating any possible correlations between ecological or public health responses and changing criteria pollutants emissions.

Air Pollution Connections to Children's Health

In June 2000, the Council of NACEC adopted Resolution 00-10 on Children's Health and the Environment. In recognition of this resolution, the NACEC air program will explore air quality tools, with an eye toward linkages between children's health and the environment, specifically focusing on air pollution connections to childhood asthma and other respiratory diseases.

As an initial step, NACEC proposes a scoping study that assesses the feasibility of linking public health databases with criteria pollutants emissions inventories that could have the potential of further elucidating connections between childhood asthma and air quality. NACEC staff would initiate a scoping process to garner greater knowledge of the health data resources in Canada, Mexico and the United States. The study would assess the potential strengths of coupling existing health databases with the criteria pollutants inventory initiative by evaluating

their combined utility as a research tool. A possible outcome would be an initial assessment of using NABIN-type data-sharing protocols among these different databases as a viable research tool for investigating linkages between childhood asthma and criteria pollutants with GIS mapping techniques.

<i>2001</i>	Estimated Resources Required (C\$)
Action 1: Prepare North American criteria pollutants emissions report	112,000
• Activity 1: Compile and review data and develop report	82,000
• Activity 2: Translation, publication and distribution of report	30,000
Action 2: Explore air quality tools in support of Council Resolution 00-10 with a focus on the connections between air quality and childhood asthma and other respiratory diseases	30,000
Total Resources Required	142,000

Public Participation

All reports developed through NACEC-supported efforts will be made available to the public. As the technical capacity develops through the described activities, NACEC envisions public participation in identifying and assessing appropriate further efforts, as needed.

Capacity Building

This project will help air quality managers improve ways of addressing transboundary air pollution by developing and promoting consistent criteria air pollutants inventories. This will complement other ongoing bilateral efforts, such as the US-Canada Air Quality Agreement, by extending data-sharing efforts across North America.

Expected Results

The project will produce a report on criteria air pollutants emissions for North America. It will establish the framework for future efforts to continue assessing criteria pollutants emissions trends and their impacts on ecosystems and public health. It will begin building linkages among existing bilateral and regional efforts so that criteria pollutants inventory data can be viewed in a comparable manner across the three countries.

Expected Partners and/or Participants

NACEC will work closely with relevant government departments, centers of excellence, and individual experts.

Linkages to other NACEC Projects

This project can link with activities in the Children’s Health and the Environment in North America, Sound Management of Chemicals, and Capacity Building for Pollution Prevention projects.

Actions 2002–2003

Overview

Based on activities and tools identified in 2001 in response to NACEC Council Resolution 00-10 on Children’s Health and the Environment, NACEC will identify new activities consistent with this resolution.

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

Project Summary

This project seeks to address significant air quality and other environmental issues associated with transport along North American trade corridors. Such issues affect all three countries of North America.

Goals and Objectives

The goal for this initiative is to identify and promote opportunities for collaboration on air quality issues in the context of trade and transportation corridors. This will seek to assess potential public health and environmental impacts as trade corridors develop, and identify possible mitigation measures that can address these impacts.

The objectives of this initiative are as follows:

- identify the principal current, and probable future, North American trade and transportation corridors, along with opportunities for environmental cooperation related to them, including sharing best practices; and
- identify and pursue collaborative opportunities on modes of transport.

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 along 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 reflect similar percentages. Over 70 percent of US-Canadian trade (by value) moves by truck, which also accounts 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.

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

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

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

Progress to Date

Initial scoping work was performed during the latter half of 1999, resulting in the preparation of *North American Trade and Trade Transportation Corridors* (September 1999). The report identified the most significant projects, participating agencies, and the current level of coordination associated with North American transportation corridors. In 2000, NACEC retained ICF Inc. to work with a stakeholders advisory group, which includes government representatives from each country, to identify likely environmental impacts (with special emphasis on the air environment) of North American trade and transportation corridor development and describe opportunities for the prevention or mitigation of these impacts. The project covers the full multi-modal definition of “trade and transportation corridors” (trucking, rail, inland and ocean waterways, air, pipelines, and electric transmission).

Actions 2001

Overview

Assessment of Trade and Transportation Corridors

The work by ICF Inc., in consultation with the stakeholders advisory group, will lead to a public presentation of a report at a NACEC-sponsored workshop in Winnipeg, Manitoba, during March 2001. The purpose of the report and workshop is to bring attention to the need for including environmental considerations at the earliest planning stages of trade and transportation corridors and to begin to bring national and trinational focus on the need for the coordinated development of these corridors.

2001	Estimated Resources Required (C\$)
Action 1: Assess trade and transportation corridors	95,000
<ul style="list-style-type: none"> • Activity 1: Support a trinational workshop of officials from government agencies and nongovernmental organizations to present and discuss trade corridor scenario analyses 	35,000
<ul style="list-style-type: none"> • Activity 2: Identify and pursue opportunities for collaboration and cooperation as a result of discussions from workshop 	60,000
Total Resources Required	95,000

Public Participation

Members of the public will participate in the corridors workshop, where representatives of citizen and business groups will be invited to review issues and participate in their resolution. The initiative will also receive input from a trade and transportation corridor listserv network established by interested stakeholders in cooperation with NACEC.

Capacity Building

Building capacity to evaluate region-wide environmental impacts and policy options beyond local, state, provincial or federal jurisdictional boundaries will be promoted by scenario assessment of future trade corridors and the exploration of best practices to mitigate potential adverse environmental impacts.

Expected Results

- Greater opportunity for near-term improved air quality in the vicinity of trade and transportation routes.
- Improved understanding of the future environmental impacts 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

These include trade, transportation, health, and environmental agencies from the three countries, citizen groups, local governments, private businesses, and other interested stakeholders. JPAC has identified NAFTA transportation corridors as a priority for its work and will be invited to participate in the Winnipeg meeting.

Linkages to other NACEC Projects

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

Actions 2002–2003

Overview

NACEC expects that the three North American countries and the discussion from the 2001 conference in Winnipeg, Manitoba, will provide additional insight into further activities for 2002 and 2003 necessary to develop corridor coordination at the national and regional levels.

3.2.1 Sound Management of Chemicals

Project Summary

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

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

Goals and Objectives

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

The specific objectives of the Sound Management of Chemicals include:

- assisting the Working Group to 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; and
- seeking to identify new and additional funds to assist the Parties with SMOC.

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).”

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 NAAEC funds as seed money to obtain additional funding in support of full implementation for NARAPs and other aspects of Council Resolution 95-05.

Progress to Date

A framework agreement in the form of Council Resolution 95-05 on the Sound Management of Chemicals was developed and adopted to facilitate regional cooperation and action to address persistent and toxic chemicals in North America. The Working Group was also established by Council, under Resolution 95-05, to work with NACEC 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 Council of NACEC. 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 trilateral action to reduce mercury. 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 trilateral action has merit. Documents pertaining to this process are posted on the NACEC web site and are also available in a consolidated report, entitled *The Sound Management of Chemicals Initiative under the North American Agreement on Environmental Cooperation: Regional Commitments and Action Plans*. The process, which has been used to review an initial set of priority substances as set forth in Resolution 95-05, will undergo an evaluation in 2001 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. Consideration will be given to the ability of the process to address classes, clusters or sectors of chemicals, and holistic concerns, such as endocrine disruption and other child health issues, and opportunities for coordination with other NACEC 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 trilateral Implementation Task Force that has replaced the group that originally developed the NARAP. The Substance Selection Task Force (SSTF), overseeing the “Process for identifying candidate substances for regional action under the Sound Management of Chemicals Program,” recommended development of a NARAP on 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, resources will be available to help facilitate the implementation of those mercury NARAP actions determined by the NACEC Council to be priorities for trilateral action. These include, in 2001, a project to develop an initial inventory of North American sites with elevated concentrations of mercury and, in 2001–2002, a review of national reporting mechanisms used to track the ultimate fate of mercury-containing wastes. As well, the mercury implementation task force will work with the Task Force on Monitoring and Assessment to ensure that the Monitoring and Assessment NARAP to be developed in 2001 incorporates pertinent actions noted in the Phase II mercury NARAP.

Other 2001–2002 activities include development and implementation of a NARAP on dioxins and furans, and hexachlorobenzene. The NARAP will address a cluster of compounds that are typically formed as unwanted byproducts released to the environment during the production or destruction of commercial products. In conjunction with NARAP development and implementation, NACEC will provide support for development of a North American baseline inventory. 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 the SMOC Task Force on Monitoring and Assessment.

The NARAP on monitoring and assessment, in addition to addressing fate and transport issues of NARAP substances, will be addressing mechanisms for coordinating monitoring and assessment of the health effects of substances. The work of the Task Force will be closely coordinated with the NACEC Children’s Health and the Environment project and the Ecosystem Monitoring Initiative.

In addition to the development and implementation of NARAPs, an important feature of the SMOC initiative is its capacity-building/leveraging program (Action 3). Activities under the program are intended as a means of assisting Mexico and generating financial resources to help Mexico execute programs to facilitate its implementation of

NARAPs and to meet other needs arising from Council Resolution 95-05 on the Sound Management of Chemicals. Capacity building is critical to the implementation of the SMOC initiative and to the NARAPs developed under it. In 2000, NACEC proposed procedures to enhance coordination of the reviews for identifying and evaluating projects. In 1999, NACEC developed a grant proposal directed to the Global Environmental Facility (GEF) to assist with implementation of the NARAP on DDT. The GEF funding, as well as assistance provided through the International Development Research Council (IDRC) to develop the proposal to GEF, will help to ensure the successful implementation of NARAP activities, which include reducing the amount of DDT used by a date approximately 80 percent ahead of the schedule projected in the NARAP.

The Chlordane Implementation Task Force in 1999 provided its evaluation report of NARAP implementation on this substance. With the cessation of its manufacture, the governments are now coordinating efforts aimed at assessment of alternatives.

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 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). Another implementation activity planned for 2001 is a NACEC-sponsored workshop on alternative disposal technologies for PCBs.

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

The Sound Management of Chemicals program has maintained a close working relationship with NACEC 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 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 projects on ecosystem monitoring and on the mapping of marine and estuarine ecosystems in North America.

Actions 2001

Overview

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

Project planning and management with oversight provided by the Working Group and input from its subsidiary bodies and the NACEC Secretariat. The Working Group will be holding two meetings in 2001 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.

Implementation of actions in the NARAP on mercury with facilitation of trilateral activities, and oversight tracking of overall progress on domestic implementation to be provided by the Implementation Task Force on mercury. The implementation Task Force will focus priorities on building capacity in Mexico.

The Substance Selection Task Force of the SMOC Working Group recommended during the eleventh regular meeting of the SMOC Working Group development of NARAP on lindane. The SMOC Working Group indicated it would consider this recommendation and formulate its recommendation to Council at its twelfth regular meeting, to be held in March 2001.

Development implementation of the NARAP on dioxins and furans, and hexachlorobenzene. The Task Force will develop the NARAP in 2001, taking into account advice received during a 2000 expert workshop and providing an early draft for stakeholder consultation. Implementation of the NARAP is foreseen for 2002.

Development of a NARAP on environmental monitoring and assessment, as directed by Council in its Resolution 99-02, included an initial consultative meeting in 2000 with experts and the Task Force formed to determine the scope of the NARAP, and a subsequent consultative workshop with stakeholders to discuss proposals for development of core sites. These sites are anticipated to build on existing networks within North America and to expand the number and nature of sites within Mexico. 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.

2001	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</p>	145,000
<p>Action 2: Task Force Reviews</p> <p>This activity will be in support of the work of the DDT Task Force to review and report on the implementation of the NARAP on DDT</p>	2,000
<p>Action 3: Capacity-building Program</p> <p>This activity involves using NACEC capacity-building resources to leverage larger funding for implementation of NARAP commitments, for example from the Global Environment Facility (GEF) 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 larger funding than can be managed under NACEC budgets</p>	180,000
<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; 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. Work will also continue to complete the North American emissions</p>	120,000

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<p>inventory for mercury, and particularly at sites with elevated mercury levels initiated in 2000</p>	
<p>Action 5: NARAP Development Task Force 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>	80,000
<p>Action 6: Dioxins and Furans, and Hexachlorobenzene NARAP Development Task Force This activity involves support for completing Phase I NARAP development 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 Joint Commission (Canada and the United States), International Air Quality Advisory Board, and support for an inventory baseline on dioxins, furans, and hexachlorobenzene (e.g., backyard burning)</p>	120,000
<p>Action 7: Monitoring and Assessment NARAP Development Task Force This activity involves support for preparation of a NARAP on Monitoring and Assessment. 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 expert/stakeholder consultation meeting; and preparation of various drafts of the NARAP. Specific activities will include development of a concept paper as a precursor to the NARAP; building capacity into the NARAP for long-term monitoring and assessment for SMOC NARAP substances (i.e., DDT, chlordane, PCBs, mercury, dioxins and furans, hexachlorobenzene, lindane and possibly lead) and the results of NARAP implementation, including reducing exposure to children; 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. The International Joint Commission, again through its International Air Quality Advisory Board, has indicated interest in assisting with development of the NARAP. Additionally, the Task Force may undertake continental modeling exercises in support of NARAPs and monitoring and assessment</p>	200,000

<p>Action 8: Substance Selection Task Force This activity will involve support for one or more meetings of the Substance Selection Task Force and several conference calls. A review of the Substance Selection process will be completed and a concept paper produced for potential revisions of 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</p>	40,000
<p>Action 9: PCB NARAP Implementation Task Force This activity will be targeted at support for a workshop on alternative disposal technologies for PCBs, an implementation activity under the NARAP on PCBs</p>	30,000
<p>Total Resources Required</p>	917,000

Capacity Building

The SMOC initiative has entered a new implementation phase involving the integration of capacity building into most aspects of the work, particularly in the implementation of the active NARAPs. In many instances, the primary focus of capacity-building activities will be in Mexico and, while the Working Group and its subsidiary bodies will have oversight and general guidance roles to play, the primary day-to-day responsibility for implementing most capacity-building activities will rest with Mexican members of these entities, working together with the NACEC Secretariat and the SMOC Working Group. Increasingly, emphasis will be on leveraging new and additional funds to assist Mexico in capacity building to support the Sound Management of Chemicals program.

In 2001, the capacity-building efforts will increasingly focus on developing and implementing major funding initiatives to support the enhancement of Mexico's capacity to implement specific provisions of the NARAPs, as well as the more general provisions of the Sound Management of Chemicals Resolution. In addition to the current GEF initiative noted above on DDT, it is anticipated that leveraging of funds be undertaken in support of implementation of the mercury and dioxin NARAPs.

Public Participation

SMOC-related documents are placed on NACEC's web site and are intended as a means of improving the transparency and accountability of the SMOC initiative. The Working Group's commitment to transparency is also reflected not only in its public reporting, but in its extensive public consultation, both at formative stages of NARAP development and during implementation. Representatives of industry, academia, environmental and aboriginal groups are also included as observers on its task forces.

Expected Partners and/or Participants

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

Expected Results

Implementation of key actions identified in Phase II of the mercury NARAP will be well underway in 2001. The NARAPs on DDT, PCBs and chlordane will be implemented, with the exception of 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; and lindane will be developed in 2001 with implementation foreseen for 2002. Startup activities on the first of these were delayed somewhat in 2000 to take full advantage of the US reassessment of dioxins.

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 be managed over the next two years in such a way that its activities adequately address children's 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 on fetuses and young children.

Actions 2002–2003

The Sound Management of Chemicals initiative has been a continuing activity since 1995 and, while the program does evolve in response to new requirements, the changes in actions/activities are expected to be relatively modest in 2002 and 2003. 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. NACEC will continue with the development and review of NARAPs, as well as the selection of additional substances. Furthermore, NACEC will consider a potential regional role in monitoring, reporting, or otherwise assisting the implementation of a global convention on persistent organic pollutants, if one is concluded and ratified by the three NAFTA Parties.

3.3.1 North American Pollutant Release and Transfer Register

Project Summary

NACEC'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*);
- developing a North American PRTR web site; and
- exploring ways to improve access and enhance understanding of PRTR data in collaboration with stakeholder groups.

In addition, the project provides support for the further development of the PRTR program in Mexico, facilitates efforts to enhance comparability among the national PRTR systems, and seeks to obtain a more comprehensive picture of pollutants in North America by analyzing existing data on nonpoint sources. NACEC also collaborates with other international organizations in the context of global and regional PRTR-related activities.

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;
- 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 highlighting the outputs of the national programs, facilitating access to information, finding ways to enhance understanding of PRTR data, and exploring opportunities for using PRTR in combination with other relevant data (e.g., health, environmental, demographic, economic);
- enhancing comparability among the North American PRTR systems;
- obtaining a more comprehensive picture of pollutants in North America by identifying and analyzing existing data on nonpoint sources; and
- coordinating North American PRTR-related activities with similar international activities.

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 NACEC 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.

North America is well positioned to serve as a global leader in the development and use of PRTRs nationally and regionally. Each of the three North American countries has a national PRTR program. The US program, called the Toxics Release Inventory (TRI), first collected data from facilities for the 1987 reporting year. Facilities began submitting data to the Canadian National Pollutant Release Inventory (NPRI) for the 1993 reporting year. In Mexico, 1997 was the first year of reporting under the voluntary *Registro de Emisiones y Transferencia de Contaminantes* (RETC) program. Through NACEC, 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 the North American PRTR 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 NACEC PRTR project aim to promote and expand upon these various uses of PRTRs by various sectors of civil society.

Progress to Date

In May 2000, NACEC published the fifth in the annual series of *Taking Stock* reports on North American pollutant releases and transfers. The reports present an overview and analysis of data on pollutant releases and transfers from industrial facilities in North America, based on data collected through the national PRTR programs. To compare data from national PRTRs with different reporting requirements, NACEC 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. To date, it 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, NACEC uses an extensive consultative process including 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 NACEC PRTR project has benefited greatly from the input and suggestions obtained from representatives of industry, government, NGOs, citizens and researchers through this consultative process. In 2000, the Consultative Group also provided valuable suggestions on possible topics to be explored related to improving access and enhancing understanding of PRTR data. Members of the Consultative Group and other interested parties have been actively involved in various NACEC-supported efforts to promote PRTRs and their use.

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 NACEC 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. The interactions that take place among the national PRTR representatives in the context of NACEC activities have also served to facilitate an informal and ongoing exchange of information and experiences among the three countries.

Recognizing the importance of facilitating access to PRTR data, NACEC has embarked on the development of a trilingual North American PRTR web site. The site provides information on PRTRs in North America, presents highlights from the matched data set and enables users to query the data on-line or to download the annual data sets. Members of the Consultative Group were invited to review and provide feedback on a prototype version of the web site in fall of 2000. A revised version is scheduled for public launch in late 2000/early 2001.

NACEC has begun a multi-year activity to identify and estimate the contribution of other sources of pollutants in North America, as PRTRs reveal only part of the picture of chemical substances released to the natural environment as a result of human activity. Contaminant sources that are not captured through the North American PRTRs include mobile sources (transportation), small sources (such as auto service stations and dry cleaners), and area sources (such as agricultural sources). A scoping exercise was conducted in 1998–99 in collaboration with NACEC’s project on North American Air Quality to identify sources of existing information in the three countries, degree of

comparability, available methodologies, and potential GIS applications. This scoping exercise provides a basis for future NACEC activities aimed at identifying and estimating the contribution of selected types of nonpoint sources of pollutants in North America.

In June 2000, during its seventh annual regular session in Dallas, Texas, the NACEC 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.

Actions 2001

Overview

Development and publication of *Taking Stock* reports

In 2001, the *Taking Stock* report on 1999 data will be developed, and planning for the 2000 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 2001, NACEC will initiate a series of special feature reports, complementary to the *Taking Stock* series, that will draw upon the North American PRTR as well as other available data sources. In 2001, a special feature report on pollution prevention activity reporting will be published, and work will commence on a second report focusing on the links between pollutants/PRTR data and children's health, as called for in Council Resolution 00-10.

Operation, updating and further development of North American PRTR web site

In 2001, NACEC will update the PRTR web site with the 1998 data (and 1999 data, if feasible), and undertake a second phase of site development to improve its usability, including incorporation of mapping capabilities. An important part of this effort will be to explore opportunities for linking the PRTR data with information/data from other NACEC programs as well as other sources.

Developing an implementation plan and facilitating action to enhance the comparability of North American PRTRs

Council Resolution 97-04 calls for the preparation and annual updating of an implementation plan for enhancing comparability among the North American PRTRs. In 2001, the NACEC Secretariat will work with the national PRTR programs to undertake the following activities, as appropriate: assess progress; develop recommendations for increasing comparability; identify topics for which additional analysis is needed; and prepare issues papers. An updated implementation plan will be prepared and made available for public comment.

Compiling and analyzing data/information on other sources of North American pollutant releases

In order to complement and provide context for the data from industrial sources collected through the North American PRTRs, NACEC will continue efforts to identify and compile existing comparable data on nonpoint or diffuse sources of substances in the matched data set and/or those that are not presently included. In particular, opportunities for compiling data on criteria air contaminants will be explored in conjunction with the NACEC Air Quality program. The specific focus and scope of this effort in 2001 will be decided by NACEC and the national PRTR representatives, taking into account input from the Consultative Group.

Support for PRTR activities in Mexico

NACEC will continue to support the further development and implementation of the Mexican RETC program, with a view towards achieving the goal stated in the 1999 Council Communiqué of mandatory reporting for all nations. In 2001, NACEC will continue to assist Mexico with outreach and training related to the RETC, including the further

development of technical guidance for industry, drawing on, as appropriate, technical guidance materials available internationally and taking into account the results of the needs assessment conducted in 2000. NACEC will also seek external sources of additional funding to support PRTR activities in Mexico, and will continue to provide support for a state-level PRTR initiative.

Improving access to and exploring ways to enhance understanding of PRTR information

NACEC will continue to work with stakeholder groups on ways to increase access and promote the use and understanding of information on pollutant releases and transfers in North America. Specific activities in 2001 will be determined, taking into account topics and mechanisms proposed by the Consultative Group in 2000, as well as the level of interest among potential partners (e.g., industry, NGOs). Activities are likely to include follow-up to projects initiated in 2000, including relevant NAFEC-supported projects.

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

NACEC will continue to coordinate with OECD, relevant UN bodies and other regions and countries in order to exchange experiences, avoid duplication of effort and promote the development and use of PRTRs.

2001	Estimated Resources Required (C\$)
Action 1: Development and publication of <i>Taking Stock—1999</i>	175,000
• Activity 1: Data analysis and report development (phase 2)	125,000
• Activity 2: Translation, publication and distribution	50,000
Action 2: Consultant selection and initial work on <i>Taking Stock—2000</i> (phase 1)	44,000
Action 3: Development and publication of special feature reports	25,500
Action 4: Operation and further development of North American PRTR web site	15,500
• Activity 1: Operation of web site and updating of data sets	5,000
• Activity 2: Further development of web site (phase 2)	10,500
Action 5: Development of implementation plan and facilitating action to enhance comparability of North American PRTRs	4,000
Action 6: Compiling and analyzing data on other sources of North American pollutant releases	10,000
Action 7: Support for PRTR activities in Mexico	100,000
• Activity 1: Support for the further development and implementation the RETC program	47,000
• Activity 2: Support for regional PRTR reporting initiative	53,000
Action 8: Improving access and exploring ways to enhance understanding of PRTR data	40,000
Action 9: Coordination with OECD, international and hemispheric PRTR activities and general outreach	5,000
Total Resources Required	419,000

Public Participation

Consultations and collaboration with stakeholder groups—including governments, industry, public interest groups and others—are an essential part of NACEC'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 NACEC PRTR project. 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:

- identifying persons who may be interested in participating in the consultation phase; NACEC consults with the national PRTR representatives to determine if the Consultative Group list is an accurate reflection of interest seen in their countries;
- 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 NACEC'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

Efforts to support the further development and implementation of the Mexican PRTR system have been, and continue to be, a priority for the North American PRTR program as part of the objective of enhancing comparability among the North American PRTRs. These 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.

Expected Results

- Publication of *Taking Stock—1998* (spring 2001)
- Publication of *Taking Stock—1999* (winter 2001/2002)
- Publication of *Taking Stock—2000* (December 2002)
- Publication of special feature report on pollution prevention activity reporting (spring 2001)
- Publication of special feature report, topic to be determined (winter 2001/2002)
- Publication of special feature report, topic to be determined (late 2002)
- Operation, updating and further development of the North American PRTR web site
- Updated implementation plan to enhance comparability among North American PRTRs (spring 2001, spring 2002)
- Compilation and analysis of data on selected nonpoint sources of pollutants in North America
- Support for the further development and implementation of the Mexican RETC
- Implementation of the regional PRTR reporting initiative in Mexico
- Facilitation/implementation of activities involving interested stakeholder groups to improve access, use and understanding of PRTR data
- Participation of NACEC in the Interorganization Program for the Sound Management of Chemicals (IOMC) PRTR Coordinating Group
- Collaboration with OECD and other organizations in the context of PRTR-relevant activities

Expected Partners and/or Participants

In the context of the PRTR project, NACEC will continue to work with:

- 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 (list available upon request);
- international organizations involved in PRTR-related work (OECD, UNITAR, UNEP); and
- institutions and groups active along the Mexico-US border (in the context of the regional PRTR reporting initiative).

Linkages to other NACEC Projects

PRTRs can serve as a valuable tool for gaining insight and tracking progress in addressing a range of environmental health issues. NACEC is exploring opportunities for promoting such uses of PRTRs and applying the information collected through the North American PRTR project in the context of other NACEC activities, including the sound management of chemicals, children's health and the environment, air quality, biodiversity, law and policy, the electricity restructuring project, and state-of-the-environment reporting. Means of linking the North American PRTR data set with other data/information sources, including those generated through NACEC activities, are also being explored, with a particular focus on enabling users to relate PRTR and other types of data on a geographic basis. In 2000, NAFEC supported a number of community-based projects related to PRTRs, access to environmental information and public participation in decision-making. Efforts will be made to build upon the results and lessons learned through these projects, and to involve interested NAFEC grantees in relevant PRTR project activities.

Actions 2002–2003

Overview

Development and publication of *Taking Stock* reports

In 2002, the *Taking Stock—2000* report will be published, and planning and development of the 2001 data report will be initiated. If feasible, according to the date by which NACEC receives the data from the national programs, the 2001 data report will also be published in December 2002.

Development and publication of special feature reports

In 2002, NACEC 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 North American PRTR web site

In 2002, NACEC will update the North American PRTR web site with the 1999 and 2000 data sets and, resources permitting, undertake further improvements to the site in order to enhance its usability.

Developing an implementation plan and facilitating action to enhance the comparability of North American PRTRs

In 2002, the NACEC Secretariat will work with the national PRTR programs to update the implementation plan and undertake related activities, as appropriate.

Support for PRTR activities in Mexico

NACEC will continue to support PRTR implementation and public access to PRTR data in Mexico.

Improving access to and exploring ways to enhance understanding of PRTR information

NACEC will continue to work with the Consultative Group and relevant partner organizations on ways to increase access to and promote the use and understanding of information on pollutant releases and transfers in North America (specific activities to be determined).

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

NACEC will continue to coordinate with the OECD, relevant UN bodies and other regions and countries in order to exchange experiences, avoid duplication of effort and promote the development and use of PRTRs.

2002
Action 1: Development and publication of <i>Taking Stock—2000</i>
<ul style="list-style-type: none">• Activity 1: Data analysis and report development (phase 2)• Activity 2: Translation, publication and distribution
Action 2: Development and publication of <i>Taking Stock—2001</i>
<ul style="list-style-type: none">• Activity 1: Consultant selection, data analysis and report development (phases 1 and 2)• Activity 2: Translation, publication and distribution
Action 3: Development and publication of special feature reports
Action 4: Operation and updating of North American PRTR web site
Action 5: Development of implementation plan and facilitating action to enhance comparability of North American PRTRs
Action 6: Support for PRTR activities in Mexico
Action 7: Improving access and exploring ways to enhance understanding of PRTR data
Action 8: Coordination with OECD, international and hemispheric PRTR activities and general outreach

2003

NACEC anticipates continuing work in this area in 2003. NACEC will continue to explore a means of reporting 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 purpose of this project is to complement and consolidate the initiatives undertaken to date by NACEC, 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*) and the exchange and dissemination of relevant information in the region. Created by NACEC, 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 NACEC Council. An attempt will be made to achieve long-term self-sufficiency for Fiprev, as well as to promote the participation of the 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.

Moreover, the operation and workings of the Round Table on Pollution Prevention in Mexico, will be consolidated and an attempt will be made to build ties with its counterparts in the United States and Canada, to lay the groundwork for taking advantage of opportunities arising from collaborative work on this issue in the region.

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 and appropriate offering of technical assistance, information and financing for projects of this nature.
- Consolidate and strengthen the organization and workings of a Round Table on Pollution Prevention in Mexico.
- Build ties between the round tables on pollution prevention of the three North American countries.
- 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.
- Consolidate Fiprev through coordination of its activities with other financing opportunities available in Mexico.
- Establish a group of donors in order to increase the fund's financial resources and link it to the activities of the Round Table on Pollution Prevention in Mexico.

Rationale

One of the objectives of the North American Agreement on Environmental Cooperation (NAAEC), 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 NACEC 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, NACEC 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 deal with this situation, the document made the following recommendations:

- 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 this type of project.
- Implement industrial policies and practices that can stimulate companies to build relationships of productive linkages to incorporate principles of pollution prevention.

Since then, NACEC 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.

NACEC 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 resins, 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, NACEC created a pilot fund for pollution prevention projects in small and medium-size businesses in Mexico. NACEC provided technical support to the fund administered by Funtec, which is headquartered at the offices of Concamin. Both institutions committed contributions to the fund of around US\$830,000 in initial capital between 1996 and 2000 (\$350,000 by NACEC and \$480,000 by Funtec) in order to make the project self-sustaining.

Currently the activities of many small tanneries are being funded, and considerable reductions in water and chemical use will be achieved through the reuse of baths and other process modifications. Based on preliminary technical studies, it is expected that through these process changes the tanneries will reduce their consumption of water and chemicals between 60 and 80 percent. Likewise, wastewater discharges and their concomitant environmental effects will diminish considerably.

As of September 2000, 12 loans totaling approximately 2.7 million pesos (US\$300,000) have been granted, and 16 more for approximately 3.4 million pesos (US\$ 375,000) have been authorized. Of these financed projects, 10 are in the tanning industry, one is in electroplating and another is in food. There are 16 projects currently being formalized: 12 in tanning and the others in 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 September 2000, repayment of credit amounted to P\$638,381 (US\$ 71,000) in capital plus P\$329,931 (US\$ 36,500) in interest, as per the schedules of payments. It is estimated that the environmental benefits generated by these twelve projects have included a saving of nearly 729 tons of chemicals and slightly over 38,700 cubic meters of water annually, with substantial increases estimated for 2001 and following years.

The promotion of the Round Table on Pollution Prevention is an effective adjunct to the activities of NACEC in this area. The Round Table commenced its activities on 28 January 2000, the date the Organizing Committee met for the first time. The Organizing Committee is made up of 11 representatives from government, industry, academia, technical and financial assistance organizations and nongovernmental organizations.

Since then, seven more meetings have been held, the most recent to assess the results of the first dissemination meeting that took place 24–25 August 2000, in Jurica, Querétaro, with the participation of the state government and about 150 attendees. The event encompassed six panels on different topics relating to the design, implementation and monitoring of pollution prevention initiatives in productive activities and services. There was also a workshop on cleaner production, as well as visits to companies in which pollution prevention projects have been successfully implemented.

As a continuation of the event's activities, six working groups are currently being organized on different pollution prevention topics, and they will formally commence their activities in November 2000 with the support of NACEC and the Mexican Center for Cleaner Production (*Centro Mexicano de Producción más Limpia*)

A web page <http://www.cmpl.ipn.mx/mesa_redonda.htm> was created for the Round Table, and contains all information on the project, including the work of the speakers at the event, and the programs of activities of the working groups.

With a view to exploring possibilities for collaboration between the North American round tables, two meetings were held among their representatives—one in Querétaro, Mexico, and the other in Montreal, Canada. These meetings led to the establishment of three major areas of common interest: pollution prevention policies and strategies, capacity building and liaison between the three organizations.

Actions 2001

Overview

The actions to be taken in subsequent years are geared toward complementing and consolidating the pollution prevention initiatives that NACEC has taken to the present time. The Round Table on Pollution Prevention will be consolidated, seeking to involve all parties concerned with the subject in Mexico, and especially the relevant entities of the United States and Canada. Of particular interest is the creation of a mechanism to institutionalize the event in the medium term, as well as to consolidate the multi-sectoral aspect of the organizing committee. For this purpose, meetings of the organizing committee will be held and liaison and follow-up mechanisms will be implemented for the activities of the Round Table, e.g., establishing networks for communication, discussion and information; creating a pollution prevention clearinghouse and forming working groups on various topics.

In addition, an attempt will be made to strengthen existing relations between the US, Canadian and Mexican round tables, through linking of their Web sites; sharing of e-mail lists and pollution prevention information; creation of networks between members of the three round tables; encouraging the participation of round table members at events organized by any of the three round tables, and promoting interaction among the working groups of the three organizations.

Likewise, actions to encourage and finance pollution prevention projects in small and medium-size establishments will be stepped up. Another relevant action will be to work to promote the consolidation of Fiprev by tying it to other funding mechanisms available with other financial institutions having greater financing capacities.

2001	Estimated Resources Required (C\$)
Action 1: Campaign to promote Fiprev among small and medium-size businesses through Funtec and Concamin	1,000
Action 2: Two meetings of the Fiprev Technical Committee	7,000
Action 3: Transfer of Fiprev activities to the Round Table on Pollution Prevention	7,000
Action 4: Consolidation of the Round Table on Pollution Prevention	30,000
Action 5: Contribution to Fiprev	70,000
Total Resources Required	115,000

Public Participation

Public participation has been given ample consideration in the project, which in fact grew out of a proposal from a trinational group of experts following their analysis of a document on pollution prevention strategies. The development of case studies was facilitated by the participation of various industrial associations and businesspeople. 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 business people.

By its very nature, the Round Table project contemplates the participation of practically all sectors of society. Among the members of the organizing committee are representatives of the Mexican Center for Cleaner Production (*Centro Mexicano para la Producción más Limpia*), *Nacional Financiera*, Concamin, the National Polytechnic Institute (*Instituto Politécnico Nacional—IPN*), the *Universidad de Guadalajara*, the Mexican Federation of Sanitary and Environmental Engineering (*Federación Mexicana de Ingeniería Sanitaria y Ambiental*) and the Business Council on Sustainable Development (*Consejo Empresarial para el Desarrollo Sustentable*), as well as a number of government agencies, including the INE, the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente—Profepa*) and the Institute of Ecology of Guanajuato (*Instituto de Ecología de Guanajuato*).

The working groups comprise a broad variety of individuals and institutions, most of them from the consultancy, nongovernmental, higher education and technical assistance sectors.

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.

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.

Likewise, 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. The working groups are geared toward topics relevant to capacity building in Mexico; therefore, their actions will promote the exchange and dissemination of information, and will take advantage of synergies between their participants.

It is anticipated that the US and Canadian round tables will participate in capacity building in Mexico, particularly through the exchange of information and professional personnel, the interactions of the working groups and the possibility of making use of distance learning systems.

Expected Results

The Round Table on Pollution Prevention will offer a 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. This forum will promote dialogue and exchange of ideas among members of industry, financial institutions, the government, academia and nongovernmental organizations in order to coordinate their efforts in a more effective manner and facilitate the attainment of their goals. In this way, it will be possible to reduce the duplication of efforts and fill the existing voids in pollution prevention activities. An additional benefit will be the spirit of cooperation generated among those involved, encouraging the dissemination of the information and facilitating the transfer of technology.

The meetings will offer the opportunity to establish informal discussions on specific themes, establish ongoing contact between participants, potentially leading to joint projects with more efficient use of available resources, and also constitute a mechanism for generating consensus on effective strategies for the implementation of pollution prevention initiatives.

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

- Granting of financing to:
40 additional businesses in 2001 and
60 more in 2002.

These actions are expected to bring the following environmental benefits:

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

Expected Partners and/or 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 IPN, *Nacional Financiera* (Nafin), the INE, the National Bank of External Trade (*Banco Nacional de Comercio Exterior*) and the World Environmental Center.

For the promotion of the Round Table on Pollution Prevention, the active participation of the Mexican Center for Cleaner Production has been obtained. This institution has taken the lead role in the project and is providing resources for the organization of the project. The following organizations are also participating: INE, Profepa, Nafin, Concamin, the IPN, the *Universidad de Guadalajara*, the Mexican Federation of Sanitary and Environmental Engineering, the Business Council on Sustainable Development, and the Institute of Ecology of Guanajuato. The University of Guadalajara and the Government of Querétaro also contributed monetary and in-kind resources for the organization and logistics of the most recent Round table meeting.

Representatives of other pollution prevention round tables attended the event, e.g., from the United States, Europe and Latin America, as well from various organizations representing practically all sectors of Mexican society. It is hoped that the US and Canadian round tables will participate in the strengthening and consolidation of the Mexican round table.

Actions 2002

2002
Action 1: Campaign to promote Fiprev among small and medium-size businesses through Funtec and Concamin
Action 2: Two meetings of the Fiprev Technical Committee
Action 3: Continuation of the Round Table on Pollution Prevention

3.4.2 Children's Health and the Environment in North America

Project Summary

In June 2000, the NACEC Council adopted Council Resolution 00-10 on Children's Health and the Environment. 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 environment 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. As a starting point, the agenda for this project will 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 calls for the formation of an Expert Advisory Board to provide advice to Council on matters of children's health in the environment. Other activities called for by Council are to:

- develop inventories of national, bilateral and trilateral activities in this area,
- convene a trilateral workshop that will initiate development of a North American cooperative agenda on children's health and the environment,
- support a domestic Mexico workshop,
- initiate activities that will increase parents' and the public's awareness and education on health concerns related to children and the environment, and
- aid in cross-fertilizing efforts of the various scientific communities involved on children's environmental health issues.

The Resolution also calls for a number of specific actions to incorporate a children's health perspective into the NACEC work program.

Goals and Objectives

The goal of NACEC'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:

- developing a North American cooperative agenda for children's health and the environment;
- ensuring public and stakeholder consideration and feedback on the NACEC agenda (governments, individuals, communities, industry, and nongovernmental environmental and health groups have roles to play in addressing children's health issues, and this process can be used to foster governmental and public-private partnerships);
- better integrate environmental and health considerations and aid the communication between the various scientific communities involved in children's environmental health issues;
- 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;
- applying the perspective of children's health and the environment to key work areas of NACEC to find opportunities to advance the protection of children's health from environmental threats; and
- taking stock of what is currently being done, assessing gaps, sharing information and expertise on national programs within and between the three governments, and identifying opportunities for further collaboration on children's health and the environment under the auspices of the NACEC.

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, NACEC 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 NACEC 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 NACEC 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 NACEC Council announced a special initiative to explore opportunities for NACEC involvement in this area. The Symposium on Children's Health and the Environment in North America, held on 10 May 2000 in Toronto, and the government meeting on 11 May 2000 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 NACEC Council during its session in Dallas, Texas, in June 2000.

Following the June Council Session, a Trilateral Children's Environmental Health Team was formed. This group has been meeting regularly to advance implementation of Council Resolution 00-10.

The NACEC Secretariat has received a grant of US\$50,000 from the US EPA as a supplementary contribution to support specific activities planned for 2000–2001, including the development of inventories of ongoing activities and the organization of two workshops.

Actions 2001

Overview

Support for Expert Advisory Board

An Expert Advisory Board, composed of nine highly qualified individuals selected by the Parties (three from each country), will be established for a period of two years to provide advice to Council on matters concerning children's health and the environment. Terms of reference for the Expert Advisory Board will be developed in collaboration with the Trilateral Children's Environmental Health Team and approved by the Alternate Representatives. The Expert Advisory Board will meet at least twice per year and will be invited to participate in children's environmental health events.

Development of inventories of national, bilateral and trilateral activities related to children's health and the environment

Working with the Trilateral Children's Environmental Health Team, the NACEC Secretariat will develop inventories of national, bilateral, and trilateral activities related to children's environmental health. The purpose of this activity is to take stock of what is currently being done, assess gaps and identify opportunities for collaborative work, taking into consideration national priorities.

Support for national workshop on children's health and the environment in Mexico

Assist in the organization of a national workshop planned for early 2001 in Mexico City as a means to foster increased policy attention and commitment to children's health and the environment in Mexico.

Organization of a trilateral workshop on children’s health and the environment in North America and initiation of follow-up activities

The Secretariat of NACEC will work with the parties through the Trilateral Children’s Environmental Health Team to organize a government workshop in the Spring of 2001 in Mexico. The workshop will include representatives from ministries with responsibilities for environment, health, industry, finance, natural resources and others, as appropriate. It will allow the parties to share information and expertise on national programs and to begin the development of specific elements of the NACEC agenda for children’s health. As a starting point, this agenda will address asthma (including triggers such as environmental tobacco smoke, indoor air and outdoor air pollutants) and other respiratory diseases, the effects of lead, including lead poisoning, and the effects of exposure to other toxic substances. Building on the outcomes of the workshop, follow-up activities will be initiated.

Repository of information on children’s health and the environment

Council Resolution 00-10 calls for the creation of a repository of research initiatives and other relevant scientific information to be sited on the NACEC home page as a means of building synergy between the health and environment research communities in the three countries. The Resolution also calls for activities to increase parent and public awareness and education about environmental threats to children’s health and ways of preventing exposures, through, *inter alia*, a web page providing relevant information and links. In 2001, NACEC will define the needs of users and initiate developmental work to build a relevant web page on children’s health and the environment to address these two objectives.

2001	Estimated Resources Required (C\$)
Action 1: Develop inventories of national, bilateral and trilateral activities related to children’s environmental health <i>To be supplemented by approximately C\$45,000 from US EPA</i>	20,000
Action 2: Support for Expert Advisory Board	40,000
Action 3: Support for national workshop on children’s health and the environment in Mexico <i>To be supplemented by approximately C\$15,000 from US EPA</i>	10,000
Action 4: Organize trilateral workshop on children’s health and the environment in North America; develop a North American cooperative agenda on children’s health and the environment; initiate follow-up activities <i>To be supplemented by approximately C\$15,000 from US EPA</i>	65,000
Action 5: Define user needs and initiate developmental work to create a relevant Children’s Environmental Health web site under the NACEC home page for public information and to facilitate cross-fertilization between environmental and health scientific communities	10,000
Action 6: In agreement with the parties, support linkages with other NACEC and children’s environmental health projects	8,000
Total Resources Required	153,000

Public Participation

In May 2000, NACEC 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 will work with the Trilateral Children’s Environmental Health Team to ensure public and stakeholder consideration and feedback as the Parties

develop the cooperative agenda for children's health and the environment. NACEC will also develop a web page and information sources for the public, as described above.

Expected Results

- Publication of inventories of national, bilateral and trilateral activities related to children's health and the environment in North America (spring 2001)
- Initial development of a North American cooperative agenda on children's health and the environment
- Initial development of a web page on children's health and the environment, to be sited on the NACEC home page

Expected Partners and/or Participants

The Council noted that governments, individuals, communities, industry, and nongovernmental environmental and health groups have roles to play in addressing children's health issues. In 2001, the Trilateral Children's Environmental Health Team will work with the Secretariat and Expert Advisory Board to explore linkages and partnerships as a part of the development process for the agenda for Children's Health and the Environment. The project will also explore linkages with existing national and binational health and environment initiatives.

Linkages to Other NACEC Projects

NACEC will explore opportunities to advance the protection of children's health through other key work areas, including the other projects in the Pollutants and Health program area. Council noted that the Sound Management of Chemicals (SMOC) Phase II of the North American regional Action Plan (NARAP) on mercury addresses the concern for women of childbearing age and children's exposure to increasing levels of mercury. Other opportunities for possible linkages exist in the following areas:

- North American Biodiversity Information Network
- Air Quality and Children's Health
- Trade and Transportation Corridors
- Sound Management of Chemicals—Monitoring and Assessment NARAP
- North American Pollutant Release and Transfer Register (PRTR)—special feature in *Taking Stock* on children's health and the environment

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. 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 two program initiatives. The first, Environmental Standards and Performance, focuses on NAAEC objectives of strengthening regional cooperation in the development and improvement of environmental laws and regulations. It provides a regional forum for the exchange of information on alternative domestic strategies for implementing improved environmental standards, standard-setting methodologies, and mechanisms for public participation in standard-setting processes. The program also supports the implementation of processes directed at greater regional compatibility of environmental technical regulations, standards and conformity assessment procedures consistent with NAFTA as well as promoting complementarity of voluntary initiatives.

The second program, Enforcement Cooperation, responds directly to the Parties' obligations for the effective enforcement of their respective environmental laws and regulations. In response to the Council mandate to ensure regional cooperation in enforcement, the program supports a regional forum of senior enforcement officials. It also addresses alternative approaches to effective enforcement and private access to remedies.

Environmental Standards and Performance

- Comparative Report on Environmental Standards

Enforcement Cooperation

- North American Regional Enforcement Forum
- Enforcement and Compliance Capacity Building
- Enforcement/Compliance Reporting
- Environmental Management Systems to Promote Compliance and Environmental Performance

4.1.1 Comparative Report on Environmental Standards

Project Summary

NACEC will produce a report on existing environmental standards in an area of concern for Canada, Mexico and the United States. Areas under current consideration include, for example, trends in trade in wastes and the regulatory regimes controlling transboundary movement of wastes, intensive agriculture practices, control regimes for invasive species, and controls on air emissions of electricity generating facilities. This report will form the basis for identifying a process to 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 NACEC 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 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 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 commits 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.

This new program initiative will enable NACEC to strengthen its role as a forum for developing coordinated regional solutions to key environmental challenges.

Actions 2001

Overview

The following describes the activities identified for the year 2001.

2001	Estimated Resources Required (C\$)
Action 1: Identify priority areas of concern for comparative report in cooperation with JPAC	10,000
Action 2: Prepare a report on the area chosen to analyse existing standards and identify possibilities, where appropriate, for a process to develop greater compatibility of standards and technical regulations (includes translation, editing and publication)	60,000
Total resources required	70,000

Public Participation

This project will seek the input of JPAC on the recommendations of the scoping papers regarding the selection of an initial area for study.

Expected Results

The project will produce a clear overview of existing regional standards in the chosen area of concern. It lays 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 project anticipates the collaboration of the appropriate government agencies of each country as well as the necessary experts or centers of excellence to adopt the comparative methodology applied to the study. The project will also involve consultation with the Enforcement Working Group to the extent that the project deals with enforcement and compliance issues.

Linkages to other NACEC Projects

Among the criteria for choosing the topic for initial work is its ability to build on previous or current NACEC project work.

Actions 2002–2003

The actions for this year will depend on the potential for further work identified in the NACEC report.

4.2.1 North American Regional Enforcement Forum

Project Summary

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

Goals and Objectives

This project supports the EWG and NAWEG in carrying out their mandates to enhance cooperation among the Parties in environmental enforcement and compliance.

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

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

Rationale

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

- take action to strengthen cooperation among the Parties in environmental enforcement and compliance;
- enhance cooperation among the environmental enforcement agencies in recognition of shared enforcement and compliance challenges;
- facilitate and support cooperative enforcement and compliance initiatives;
- exchange information and experiences with alternative approaches to enforcement and compliance;
- facilitate training opportunities among the three Parties;
- prepare on behalf of the Parties the report on environmental enforcement obligations and activities for the NACEC annual report; and
- recommend to NACEC 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. The program area further responds to the recommendation in *A Shared Agenda for Action* that the NACEC Enforcement Cooperation Program concentrate on compliance assistance and information sharing, as well as promoting improved governmental expertise in alternative ways to encourage better environmental performance. The year 2001 will be a key time for the EWG since there will be a turnover in membership involving the participants from all three countries. A special annual meeting in spring 2001 will convene new EWG members and high ranking enforcement officials from Canada, Mexico and the United States to explore ongoing and new avenues for cooperation.

Progress to Date

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

Since 1995, NACEC has provided support for meetings and communications among the members of the EWG, NAWEG and related task groups. Meetings of the EWG and NAWEG have been coordinated to also enable their effective participation in the development and delivery of the Enforcement Cooperation Program. The networks have spawned a series of additional task groups initiating cooperative work on issues of priority regional concern, including transboundary hazardous waste, environmental management systems (EMS) and other voluntary approaches to compliance, and enforcement of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Continued support to the EWG will ensure continuity of these cooperative regional enforcement efforts. Both the EWG and NAWEG are becoming widely recognized as model regional enforcement networks. They also provide a ready point of contact for enforcement agencies and entities worldwide, including Interpol, the World Customs Organization, the International Network on Environmental Compliance and Enforcement (INECE) and other regional enforcement networks.

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

Actions 2001

Overview

2001	Estimated Resources Required (C\$)
Action 1: Hold a special annual meeting in spring 2001, of high-level officials, including new EWG appointees, to advise on the NACEC Enforcement Cooperation Program and to discuss new avenues for cooperation; preparation of background reports on focus topic for the meeting; ongoing communication between the EWG, NAWEG and task groups	50,000
Action 2: Organize adjunct meetings of enforcement task groups	18,000
Action 3: Foster an interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws	17,000
Action 4: Coordinate the preparation of the enforcement section to the NACEC annual report	0
Action 5: Promote public outreach through (a) consultations with JPAC, NACs and other groups; (b) contribution to NACEC electronic newsletter; (c) distribution of related reports to public	20,000
Action 6: 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	108,000

Public Participation

As outlined above, a major objective for this project has been improving outreach to the public. 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 NACEC homepage. In addition, mechanisms will be explored to allow for public involvement in the selection of priority enforcement matters meriting regional attention. In the planning and delivery of specific regional enforcement initiatives, attention will be placed on involving the interested public, including NGOs, industry, academics, and other groups where appropriate. NACEC in 2000 created a web page for NAWEG to provide easier access to the public to its activities and publications.

Capacity Building

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

Expected Results

This project will provide continued support to these regional networks in furtherance of their mandates for regional cooperation in effective environmental enforcement and to help them serve as fora for development of the NACEC Enforcement Cooperation Program. This includes continued responsibility for coordinating and preparing the report on enforcement-related obligations under NAAEC, including a special year 2002 enforcement report.

The special Annual Meeting in April 2001 will focus on selected enforcement issues of joint concern and will enable new EWG members to explore additional avenues for cooperation in enforcement and compliance. The challenge for the next years will be to integrate new members on the working groups and to restructure the groups to allow the participation of other relevant agencies, for example, fisheries, marine, parks and other levels of government, including provincial and state enforcement agencies. As discussed in the Public Participation section above, a parallel challenge for the immediate future is finding the means to accommodate requests from the public, including NGOs, regulated industry, and academics, in the design and delivery of the Enforcement Cooperation Program.

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

Building on the success of the NAWEG web page, the Secretariat will be hyperlinking the enforcement-related homepages of the Parties' agencies on the NACEC homepage to facilitate access to enforcement information and exchange of strategies. Alternative mechanisms will be explored to inform and involve the North American public in the efforts of the regional networks.

Expected Partners and/or Participants

The project will continue to be delivered in partnership with North American environmental and wildlife agencies. 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. NACEC will continue to deliver the project in partnership with the North American Wildlife Enforcement Group and the Enforcement Working Group. Partnerships will continue to be explored with other regional enforcement networks and related international organizations, such as INECE and Interpol, and with other

relevant individuals and organizations. JPAC has identified this area as a priority. JPAC has been following the work of NAWEG and EWG and will be consulted on ongoing work of the EWG.

Linkages to other NACEC Projects

The work of all NACEC projects in the Enforcement Cooperation Program is supervised by the Regional Enforcement Forum. There are ongoing linkages with the Sound Management of Chemicals (SMOC) program and with projects of the Conservation of Biodiversity program relating to invasive species and priority ecoregions.

Actions 2002–2003

Overview

2002
Action 1: Hold annual meeting to advise on NACEC Enforcement Cooperation program; review of progress reports on topic for cooperative effort; ongoing communication between the EWG, NAWEG and task groups
Action 2: Organize adjunct meetings of enforcement task groups
Action 3: Foster interagency exchange of information, regional priority-setting, and strategy for enforcement of and compliance with environmental laws
Action 4: Coordinate the preparation of the enforcement section of the annual report
Action 5: Promote public outreach through (a) consultations with JPAC, NACs, other groups; (b) contribution to NACEC electronic newsletter; (c) distribution of related reports to public
Action 6: Further outreach to other regional and international networks; EWG outreach to provincial/state agencies as well to INECE and OAS Environmental Enforcement Task Group; NAWEG outreach to other agencies (marine, parks), including state/provincial agencies as well as Interpol and World Customs Organization

2003

NACEC anticipates continuing work in this area in 2003.

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 NACEC capacity building program 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 dealing with enforcement issues associated with pollution control, will focus in 2001 on building regional capacity 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 NACEC 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.

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 ozone-depleting substances (ODSs) and the year 2000 marked the entry into force in Mexico of 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. The NACEC project to organize joint training on enforcement issues related to ODSs will not only build enforcement capacity but serve as a foundation to build an enforcement network for continuing cooperation. Efforts will be made to explore working with UNEP in a broader network involving Central and South American countries.

In 2002, NACEC will sponsor an additional training session on another area involving enforcement cooperation. 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, NACEC will sponsor a conference of environmental enforcement officials from the three countries to discuss the use of extradition and mutual legal assistance treaties as tools for improving the enforcement of each Party's domestic environmental and natural resources laws.

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, cooperative efforts for capacity building have targeted enhanced capability to track and enforce regional implementation of CITES and related laws in North America. By the end of 2000, five regional training programs will 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. For example, the 2000 conference on enforcement issues related to trophy hunting corresponded to a priority identified by enforcement officials from all three countries to focus on the enforcement issues for exchange of information on the regulatory regimes, the nature of legal and illegal activities, strategies to detect and deter illegal activities, and involvement of other groups in ensuring compliance.

b) Wildlife forensics

In 1997, NACEC, in cooperation with NAWEG, the US National Fish and Wildlife Forensics Laboratory, and the *Universidad Nacional Autónoma*, sponsored a seminar for enforcement officials and forensics authorities of the three countries on forensic techniques, DNA identification techniques, crime scene investigation, necropsy issues, species identification and medicinal trade issues. In 1999, NACEC, 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 NACEC, 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, NACEC 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. To date, emphasis has been in three areas:

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

Since 1996 the EWG has identified the need for cooperation in improving the capacity to track and enforce laws regulating the transborder movement of hazardous wastes and CFCs. In 1999, NACEC 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.

b) Sound Management of Chemicals

Since 1997, the Enforcement Working Group has been invited to participate in discussions on the implementation of action plans for the Sound Management of Chemicals Program. EWG participation in the development stage of the action plan ensures that compliance strategies are considered at the front end.

c) Alternative approaches to achieving compliance

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

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

Actions 2001

Overview

2001	Estimated Resources Required (C\$)
Action 1: Help build wildlife and CITES tracking and enforcement capacity	135,000
• Activity 1: Organize and hold in the United States a workshop on mechanisms for public participation in wildlife enforcement involving both public and private sector	100,000
• Activity 2: Offer ongoing support to wildlife enforcement training network and partnership;	17,000
• Activity 3: Collaborate on NACEC projects on priority regions and invasive species	3,000
• Activity 4: Further work to publish the wildlife forensics directory as an online database	4,000
• Activity 5: Follow up the 2000 seminar on enforcement issues related to trophy hunting	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	3,000

Action 2: Help build pollution control tracking and enforcement capacity	88,000
• Activity 1: Sponsor training workshop on ODS enforcement issues for enforcement and customs officers	75,000
• Activity 2: Offer support to networking and outreach to Central American and Caribbean agencies to identify priorities for joint capacity-building initiatives and to explore potential sources of support and exchange of enforcement data and intelligence	3,000
• Activity 3: Support the Sound Management of Chemicals action plans on implementation/compliance issues	10,000
Total Resources Required	223,000

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. A second initiative involves dialogue between the EWG, NAWEG and public on the issue of priorities and alternative strategies for improved enforcement. In 2001, the NAWEG focus is the inclusion of the interested public in enforcement activities. Industry will be a participant in part of the training given on ODS enforcement.

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. In 2001, attempts will be made to find ways to broaden public participation in wildlife enforcement activities.

Pollution control tracking and enforcement initiatives will address three priorities: (1) enforcement and compliance aspects of the Sound Management of Chemicals, (2) training 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;
- delivery of a 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; 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:

- training 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;

- 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 NACEC 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 NACEC Projects

Effective delivery of these capacity-building initiatives will require enhanced interaction among the various related working groups and projects in NACEC, 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, their assistance has been requested for aspects of Phase II of the mercury North American Regional Action Plan. NAWEG representatives will participate in the planning for a workshop on invasive species organized by the Conservation of Biodiversity program and will pursue this collaboration in their own initiative on invasive species in 2002.

Actions 2002

Overview

2002
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 NACEC project on priority ecosystem regions
<ul style="list-style-type: none"> • Activity 4: Follow up seminar on enforcement issues for invasive 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 2003 seminar on endangered plant species

Action 2: Help build pollution control tracking and enforcement capacity
• Activity 1: Participate in Sound Management of Chemicals initiative to identify alternatives for improved control through enhanced compliance (specific action plans for priority chemicals)
• Activity 2: Follow up CFC training by ongoing support to enforcement network
• Activity 3: Sponsor seminar on mutual legal assistance and extradition agreements

Actions 2003

NACEC anticipates continuing work in this area in 2003.

4.2.3 Enforcement/Compliance Reporting

Project Summary

The Enforcement Working Group has since 1995 prepared the enforcement section of NACEC's annual report. This reporting function was enhanced in 2000 with the first 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. Because of the work involved, this report will be published on a biennial basis with the next report to be published in 2002 on other topics selected by the Parties. In the alternating year, in which the special enforcement report is not published (i.e., 2001), NACEC will issue a comparative enforcement report on a different topic. In 2001, this report will compare trends in the growth of environmental requirements with the level of enforcement resources available.

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

This project area was initiated in 2000 with the production of the first special enforcement report on three selected topics. This report was distributed to the public through making printed copies available and by posting it on the NACEC web site.

2001	Estimated Resources Required (C\$)
Action 1: NACEC will prepare, edit, translate and publish a report on an enforcement and compliance promotion topic	60,000

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 2002 special enforcement report will be prepared under the supervision of the EWG, involving contributions from federal and state/provincial agencies in each country. The 2001 report will be prepared by NACEC on a topic chosen in consultation with JPAC.

Linkages to other NACEC Projects

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

Actions 2002–2003

The EWG will supervise production of the 2002 special enforcement report. NACEC anticipates continuing work in this area after 2002.

4.2.4 Environmental Management Systems to Promote Compliance and Environmental Performance

Project Summary

This project continues work that responds to the NACEC Council direction to the Enforcement Working Group to explore the relationship between voluntary environmental management system (EMS) programs, including ISO 14001, and government programs to enforce, verify, and promote compliance with environmental laws and regulations. It provides an opportunity to exchange information and develop cooperative positions regarding the role and effect of EMSs on compliance and environmental performance.

Goals and Objectives

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

The objectives include:

- support to the cooperative evaluation of the effectiveness of environmental management systems (including ISO 14001) in enhancing pollution prevention and overall environmental performance and compliance, including the exploration of pilot projects; and
- follow-up to the issuance of the guidance document: “Improving Environmental Performance and Compliance: 10 Elements of Effective Environmental Management Systems.”

Rationale

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

Progress to Date

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

Actions 2001

Overview

2001	Estimated Resources Required (C\$)
Action 1: Sponsor public workshop in Canada with government, industry, NGOs and academia to promote awareness and use of the EMS guidance document; to exchange information on new government initiatives to examine and promote use of EMSs; to be cosponsored with Environment Canada and others	30,000
Action 2: Publish workshop proceedings	15,000
Action 3: Publish and disseminate the EMS guidance document	5,000
Action 4: Identify and work with industry partners to develop pilot projects in which facilities adopt EMSs that include the guidance document's 10 Elements and then track their compliance/environmental performance records	25,000
Action 5: Hold meetings of EMS task group to plan and finalize design of research project and to explore possibilities of joint work on other EMS issues of mutual concern	10,000
Total Resources Required	85,000

Expected Results

The project will produce a cooperative analysis of the effectiveness of EMSs (including ISO 14001) in enhancing pollution prevention and overall environmental performance and compliance, including:

- joint review of domestic experience with pilot application of the NACEC guidance document on environmental management systems;
- continued cooperation in the review of the effectiveness of EMSs (including ISO 14001) in enhancing pollution control, overall environmental performance and compliance, including exploration of cooperative pilot projects;
- continued exploration of the needs and opportunities for awareness of EMSs by small to medium-size enterprises and helping to ensure their environmental compliance and improved performance;
- continued exchange of information with other countries, regions and organizations regarding polices and programs that involve EMSs and compliance; and
- continuing to examine and, as appropriate, make recommendations to the Council on core elements of EMSs (including ISO 14001) for consideration in domestic polices and programs.

Expected Partners and/or Participants

NACEC will work with various government agencies and departments, industry and trade groups and the public in identifying and measuring the impact of EMSs on compliance and environmental performance. Partnerships will be sought with government agencies and industry in organizing a seminar on EMSs in Canada in 2001.

Public Participation

NACEC and the EWG conducted a public consultation on the EMS guidance document in 2000 at a JPAC meeting in Guadalajara, Mexico, and through solicitation of comments. A seminar to be held in 2001 to seek further input on the EMS guidance document will involve business and industry groups, academia and nongovernmental groups.

Linkages to other NACEC Projects

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

Actions 2002–2003

Future work in this area is contingent upon progress achieved during 2001.

OTHER INITIATIVES OF NACEC

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

Specific Obligations under the Agreement (SOUN)

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

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

North American Fund for Environmental Cooperation (NAFEC)

In 2001–2002, the North American Fund for Environmental Cooperation (NAFEC) will continue to:

- support community-based projects;
- emphasize aspects of capacity building and the development of partnerships across borders and sectors;
- issue a focused Call for Proposals linked to one or more NACEC projects and link the results of NAFEC-supported projects to other components of NACEC’s work program;
- emphasize public participation within NACEC processes and within other processes 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 2001, NAFEC will again operate with a reduced budget. Approximately, US\$400,000 will be available for grants to community-based projects. NACEC will thus further narrow the NAFEC Call for Proposals to focus on a specific program area or areas (to be identified before the end of 2000). The 2001 Call for Proposals will be released in early 2001 with a deadline in April. NACEC will also act on the Council’s decision 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	C\$739,000

The Joint Public Advisory Committee (JPAC)

The Joint Public Advisory Committee (JPAC) is one of the constituent bodies of the North American Commission for Environmental Cooperation (NACEC), 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 North American Agreement on Environmental Cooperation (NAAEC). In another respect, as it represents the North American community-at-large, one of its important obligations is to ensure that public input and concerns are taken into account when formulating its advice to Council.

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

Articles 14 and 15 of NAAEC

A JPAC priority in 2001 will be to focus on the implementation of Council Resolution 00-09 related to NAAEC Articles 14 and 15.

In accordance with this Council mandate, JPAC will conduct public reviews on issues raised and provide advice to Council on how these issues might be addressed. It will also review the public history of submissions made under Articles 14 and 15, including all actions taken to implement those articles, and shall provide a report identifying the lessons learned by submitters and other parties to that process. JPAC has now initiated the public review process and compiled a list of steps to be followed in that process as related to these matters. It has also organized a first public workshop (December 2000) on the history of the submission process, with a view to identifying lessons learned.

In 2001, JPAC will issue a second call for public comments and will hold a second public workshop in conjunction with the June Regular Session of Council (in Mexico) on Submissions History—Lessons Learned. Taking into account the comments made by the public and information provided by the Parties in accordance with Council Resolution 00-09, JPAC will prepare a report and submit it to Council, identifying the lessons learned related to the public history of submissions made under NAAEC Articles 14 and 15. This report should be released in the fall.

In 2002, JPAC will continue to pursue the public review process on Articles 14 and 15 and will provide a report to Council through a public workshop on the results of the implementation of the matters related to the Council Resolution 00-09.

NACEC Program and Administrative Matters

In addition, JPAC will be prepared to initiate new advice to Council and to respond, throughout the year, to direct requests from Council. 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 opportunities to advise Council on strategic directions for NACEC, 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 NACEC and, in the process, receive more direct feedback on emerging trends 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 NACEC, as well as receive public input on selected program and administrative topics at each of its meetings for appropriate advice to Council.

Actions 2001

2001	Estimated Resources Required (C\$)
Total Resources Required	C\$370,000

* This budget forecast excludes the expenses that could be incurred following a future decision by Council to entrust specific additional mandates to JPAC. Expenses for public participation related to specific NACEC projects are budgeted within those projects.

BUDGET

The CEC Budget consists of the following categories:

Program

This item includes:

- project costs including costs of publications; (please note that the apparent decreases in the Environment, Economy and Trade program area reflect the re-location of the “Trade in Wildlife Species” project into the Conservation of Biodiversity program area);
- 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; and
- executive management, including costs for the Mexico liaison office.

Administration and support

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

Contingency Fund

Set aside for unforeseen costs.

2001 Project Budget Summary

I – ENVIRONMENT, ECONOMY AND TRADE

<i>1.1.1</i>	<i>Emerging Environmental Trends in North America</i>	
	Cooperative and partnership agreements, professional fees	100,000
	Travel, accommodation, interpretation and meetings expenses	37,000
	Translation, publication and distribution costs	30,000
	Other expenses	
	Equipment purchase (if applicable)	
	Total:	167,000
<i>1.1.2</i>	<i>Assessing Environment and Trade Relationships</i>	
	Cooperative and partnership agreements, professional fees	55,000
	Travel, accommodation, interpretation and meetings expenses	35,000
	Translation, publication and distribution costs	95,000
	Other expenses	
	Equipment purchase (if applicable)	
	Total:	185,000
<i>1.2.1</i>	<i>Supporting Biodiversity Conservation through Green Goods and Services: Shade Coffee, the Chamaedorea Palm and Sustainable Tourism</i>	
	Cooperative and partnership agreements, professional fees	210,000
	Travel, accommodation, interpretation and meetings expenses	30,000
	Translation, publication and distribution costs	30,000
	Other expenses	
	Equipment purchase (if applicable)	
	Total:	270,000
<i>1.2.2</i>	<i>Market and Financial Mechanisms in Support of the Environment</i>	
	Cooperative and partnership agreements, professional fees	88,000
	Travel, accommodation, interpretation and meetings expenses	20,000
	Translation, publication and distribution costs	20,000
	Other expenses	
	Equipment purchase (if applicable)	
	Total:	128,000

II – CONSERVATION OF BIODIVERSITY

2.1.1	<i>Strategies and Cooperative Action for the Conservation of Biodiversity in North America</i>	
	Cooperative and partnership agreements, professional fees	50,000
	Travel, accommodation, interpretation and meetings expenses	135,000
	Translation, publication and distribution costs	30,000
	Other expenses	5,000
	Equipment purchase (if applicable)	
	Total:	220,000
2.1.2	<i>North American Bird Conservation Initiative</i>	
	Cooperative and partnership agreements, professional fees	190,000
	Travel, accommodation, interpretation and meetings expenses	53,000
	Translation, publication and distribution costs	
	Other expenses	2,000
	Equipment purchase (if applicable)	
	Total:	245,000
2.1.3	<i>Species of Common Conservation Concern</i>	
	Cooperative and partnership agreements, professional fees	75,000
	Travel, accommodation, interpretation and meetings expenses	20,000
	Translation, publication and distribution costs	
	Other expenses	5,000
	Equipment purchase (if applicable)	
	Total:	100,000
2.1.4	<i>Mapping Marine and Estuarine Ecosystems of North America</i>	
	Cooperative and partnership agreements, professional fees	45,000
	Travel, accommodation, interpretation and meetings expenses	45,000
	Translation, publication and distribution costs	20,000
	Other expenses	5,000
	Equipment purchase (if applicable)	
	Total:	115,000
2.1.5	<i>North American Marine Protected Areas Network</i>	
	Cooperative and partnership agreements, professional fees	119,000
	Travel, accommodation, interpretation and meetings expenses	16,000
	Translation, publication and distribution costs	
	Other expenses	3,000
	Equipment purchase (if applicable)	
	Total:	138,000

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<i>2.1.6</i>	<i>Global Programme of Action for the Protection of the Marine Environment from Land-based Activities in North America</i>	
	Cooperative and partnership agreements, professional fees	74,000
	Travel, accommodation, interpretation and meetings expenses	6,000
	Translation, publication and distribution costs	
	Other expenses	
	Equipment purchase (if applicable)	
	Total:	80,000
<i>2.1.7</i>	<i>Closing the Pathways of Aquatic Invasive Species across North America</i>	
	Cooperative and partnership agreements, professional fees	50,000
	Travel, accommodation, interpretation and meetings expenses	10,000
	Translation, publication and distribution costs	15,000
	Other expenses	5,000
	Equipment purchase (if applicable)	
	Total:	80,000
<i>2.1.8</i>	<i>North American Biodiversity Information Network</i>	
	Cooperative and partnership agreements, professional fees	170,000
	Travel, accommodation, interpretation and meetings expenses	10,000
	Translation, publication and distribution costs	7,000
	Other expenses	10,000
	Equipment purchase (if applicable)	
	Total:	197,000

III – POLLUTANTS AND HEALTH

<i>3.1.1 Facilitating Trinational Coordination in Air Quality Management</i>	
Cooperative and partnership agreements, professional fees	40,000
Travel, accommodation, interpretation and meetings expenses	146,000
Translation, publication and distribution costs	45,000
Other expenses	10,000
Equipment purchase (if applicable)	
Total:	241,000
<i>3.1.2 Developing Technical and Strategic Tools for Improved Air Quality in North America</i>	
Cooperative and partnership agreements, professional fees	92,000
Travel, accommodation, interpretation and meetings expenses	10,000
Translation, publication and distribution costs	30,000
Other expenses	10,000
Equipment purchase (if applicable)	
Total:	142,000
<i>3.1.3 Trinational Air Quality Improvement Initiative: North American Trade and Transportation Corridors</i>	
Cooperative and partnership agreements, professional fees	62,000
Travel, accommodation, interpretation and meetings expenses	20,000
Translation, publication and distribution costs	10,000
Other expenses	3,000
Equipment purchase (if applicable)	
Total:	95,000
<i>3.2.1 Sound Management of Chemicals</i>	
Cooperative and partnership agreements, professional fees	463,000
Travel, accommodation, interpretation and meetings expenses	355,000
Translation, publication and distribution costs	80,000
Other expenses	19,000
Equipment purchase (if applicable)	
Total:	917,000

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<i>3.3.1 North American Pollutant Release and Transfer Register</i>		
Cooperative and partnership agreements, professional fees		271,000
Travel, accommodation, interpretation and meetings expenses		56,300
Translation, publication and distribution costs		76,700
Other expenses		
Equipment purchase (if applicable)		15,000
	Total:	419,000

<i>3.4.1 Pollution Prevention</i>		
Cooperative and partnership agreements, professional fees		97,000
Travel, accommodation, interpretation and meetings expenses		14,000
Translation, publication and distribution costs		2,000
Other expenses		2,000
Equipment purchase (if applicable)		
	Total:	115,000

<i>3.4.2 Children's Health and the Environment in North America</i>		
Cooperative and partnership agreements, professional fees		46,000
Travel, accommodation, interpretation and meetings expenses		92,000
Translation, publication and distribution costs		15,000
Other expenses		
Equipment purchase (if applicable)		
	Total:	153,000

IV – LAW AND POLICY

<i>4.1.1 Cooperative Report on Environmental Standards</i>		
Cooperative and partnership agreements, professional fees		25,000
Travel, accommodation, interpretation and meetings expenses		5,000
Translation, publication and distribution costs		40,000
Other expenses		
Equipment purchase (if applicable)		
	Total:	70,000

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<i>4.2.1 North American Regional Enforcement Forum</i>		
<i>Trilateral Forum</i>		
Cooperative and partnership agreements, professional fees		35,000
Travel, accommodation, interpretation and meetings expenses		35,000
Translation, publication and distribution costs		3,000
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	73,000
<i>Adjunct meetings of task groups</i>		
Cooperative and partnership agreements, professional fees		8,000
Travel, accommodation, interpretation and meetings expenses		2,000
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	10,000
<i>Interagency exchange of information</i>		
Cooperative and partnership agreements, professional fees		1,000
Travel, accommodation, interpretation and meetings expenses		6,000
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	7,000
<i>Coordination of preparation of Enforcement section to the Annual Report</i>		
Cooperative and partnership agreements, professional fees		
Travel, accommodation, interpretation and meetings expenses		
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	
<i>Public Outreach through consultations with JPAC, NACs and other groups</i>		
Cooperative and partnership agreements, professional fees		1,000
Travel, accommodation, interpretation and meetings expenses		10,000
Translation, publication and distribution costs		3,000
Other expenses		1,000
Equipment purchase (if applicable)		
	Subtotal:	15,000
<i>Outreach to other regional/international networks</i>		
Cooperative and partnership agreements, professional fees		1,000
Travel, accommodation, interpretation and meetings expenses		2,000
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	3,000
	Total	108,000

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4.2.2	<i>Enforcement and Compliance Capacity Building</i>	
	<u>Wildlife and CITES Tracking and Enforcement Capacity</u>	
	<i>Workshop on mechanisms for public participation</i>	
	Cooperative and partnership agreements, professional fees	10,000
	Travel, accommodation, interpretation and meetings expenses	95,000
	Translation, publication and distribution costs	5,000
	Other expenses	
	Equipment purchase (if applicable)	
	Subtotal:	110,000
	<i>Training network and partnership</i>	
	Cooperative and partnership agreements, professional fees	
	Travel, accommodation, interpretation and meetings expenses	7,000
	Translation, publication and distribution costs	
	Other expenses	
	Equipment purchase (if applicable)	
	Subtotal:	7,000
	<i>Collaboration on priority regions and invasive species projects</i>	
	Cooperative and partnership agreements, professional fees	
	Travel, accommodation, interpretation and meetings expenses	10,000
	Translation, publication and distribution costs	
	Other expenses	1,000
	Equipment purchase (if applicable)	
	Subtotal:	11,000
	<i>Publication of wildlife forensics directory as online database</i>	
	Cooperative and partnership agreements, professional fees	4,000
	Travel, accommodation, interpretation and meetings expenses	
	Translation, publication and distribution costs	
	Other expenses	
	Equipment purchase (if applicable)	
	Subtotal:	4,000
	<i>Training materials (follow-up to trophy hunting seminar)</i>	
	Cooperative and partnership agreements, professional fees	2,000
	Travel, accommodation, interpretation and meetings expenses	
	Translation, publication and distribution costs	6,000
	Other expenses	
	Equipment purchase (if applicable)	
	Subtotal:	8,000
	<i>Support to networking and outreach to Central American and Caribbean agencies</i>	
	Cooperative and partnership agreements, professional fees	
	Travel, accommodation, interpretation and meetings expenses	1,500
	Translation, publication and distribution costs	1,500
	Other expenses	
	Equipment purchase (if applicable)	
	Subtotal:	3,000

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<u>Pollution Control Tracking and Enforcement Capacity</u>		
<i>Training workshop on ODS</i>		
Cooperative and partnership agreements, professional fees		5,000
Travel, accommodation, interpretation and meetings expenses		60,000
Translation, publication and distribution costs		5,000
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	70,000
<i>Support to networking and outreach to Central American and Caribbean agencies</i>		
Cooperative and partnership agreements, professional fees		1,000
Travel, accommodation, interpretation and meetings expenses		2,000
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	3,000
<i>Support provided to the SMOC action plans with respect to implementation/compliance issues</i>		
Cooperative and partnership agreements, professional fees		7,000
Travel, accommodation, interpretation and meetings expenses		
Translation, publication and distribution costs		
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	7,000
	Total	223,000
 4.2.3 Enforcement/Compliance Reporting		
Cooperative and partnership agreements, professional fees		20,000
Travel, accommodation, interpretation and meetings expenses		
Translation, publication and distribution costs		40,000
Other expenses		
Equipment purchase (if applicable)		
	Total:	60,000
 4.2.4 Environmental Management Systems to Promote Compliance and Environmental Performance		
<i>Public workshop to promote use of EMS Guidance Document</i>		
Cooperative and partnership agreements, professional fees		3,000
Travel, accommodation, interpretation and meetings expenses		30,000
Translation, publication and distribution costs		2,000
Other expenses		
Equipment purchase (if applicable)		
	Subtotal:	35,000

North American Agenda for Action: 2001–2003
2001 Project Budget Summary

<i>Publication of Workshop Proceedings</i>	
Cooperative and partnership agreements, professional fees	
Travel, accommodation, interpretation and meetings expenses	
Translation, publication and distribution costs	15,000
Other expenses	
Equipment purchase (if applicable)	
Subtotal:	15,000
<i>Publication and distribution of EMS Guidance Document</i>	
Cooperative and partnership agreements, professional fees	
Travel, accommodation, interpretation and meetings expenses	
Translation, publication and distribution costs	5,000
Other expenses	
Equipment purchase (if applicable)	
Subtotal:	5,000
<i>Identification of industry partners to develop pilot projects</i>	
Cooperative and partnership agreements, professional fees	20,000
Travel, accommodation, interpretation and meetings expenses	2,000
Translation, publication and distribution costs	3,000
Other expenses	
Equipment purchase (if applicable)	
Subtotal:	25,000
<i>Meeting of EMS task group</i>	
Cooperative and partnership agreements, professional fees	
Travel, accommodation, interpretation and meetings expenses	5,000
Translation, publication and distribution costs	
Other expenses	
Equipment purchase (if applicable)	
Subtotal:	5,000
Total	85,000

General

	2001
1 - 4. Program	4,553,000
1. - Environment, economy and Trade	750,000
2. - Conservation of biodiversity	1,175,000
3. - Pollutants and health	2,082,000
4. - Law and policy	546,000
7. - Program support	6,020,000
7.1 Salaries	3,685,000
7.2 Telecommunications	89,000
7.3 Rent	617,000
7.4 Operating equipment	148,000
7.5 Office supplies	140,000
7.6 Relocation and orientation	96,000
7.7 Executive Management	350,000
7.7.1 <i>Office of the Executive Director</i>	140,000
7.7.2 <i>Program Directorate</i>	37,000
7.7.3 <i>Communications Directorate</i>	30,000
7.7.4 <i>Mexico Liaison Office</i>	143,000
7.8 Public outreach	436,000
7.9 Planning and Evaluation	89,000
7.10 Contingency fund	370,000
7.10.1 <i>Unforeseen needs</i>	148,000
7.10.2 <i>Reserve for reimbursement of Quebec taxes</i>	74,000
7.10.3 <i>Reserve for currency fluctuations</i>	148,000
8. - Other initiatives	2,443,000
8.1 SOUN	1,022,000
8.2 NAFEC	739,000
8.3 Council	312,000
8.4 JPAC	370,000
Grand total for program related costs	13,016,000
9. - Administration and finance	1,073,000
9.1 Salaries	637,000
9.2 Telecommunications	12,000
9.3 Rent	84,000
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	14,089,000

Summary

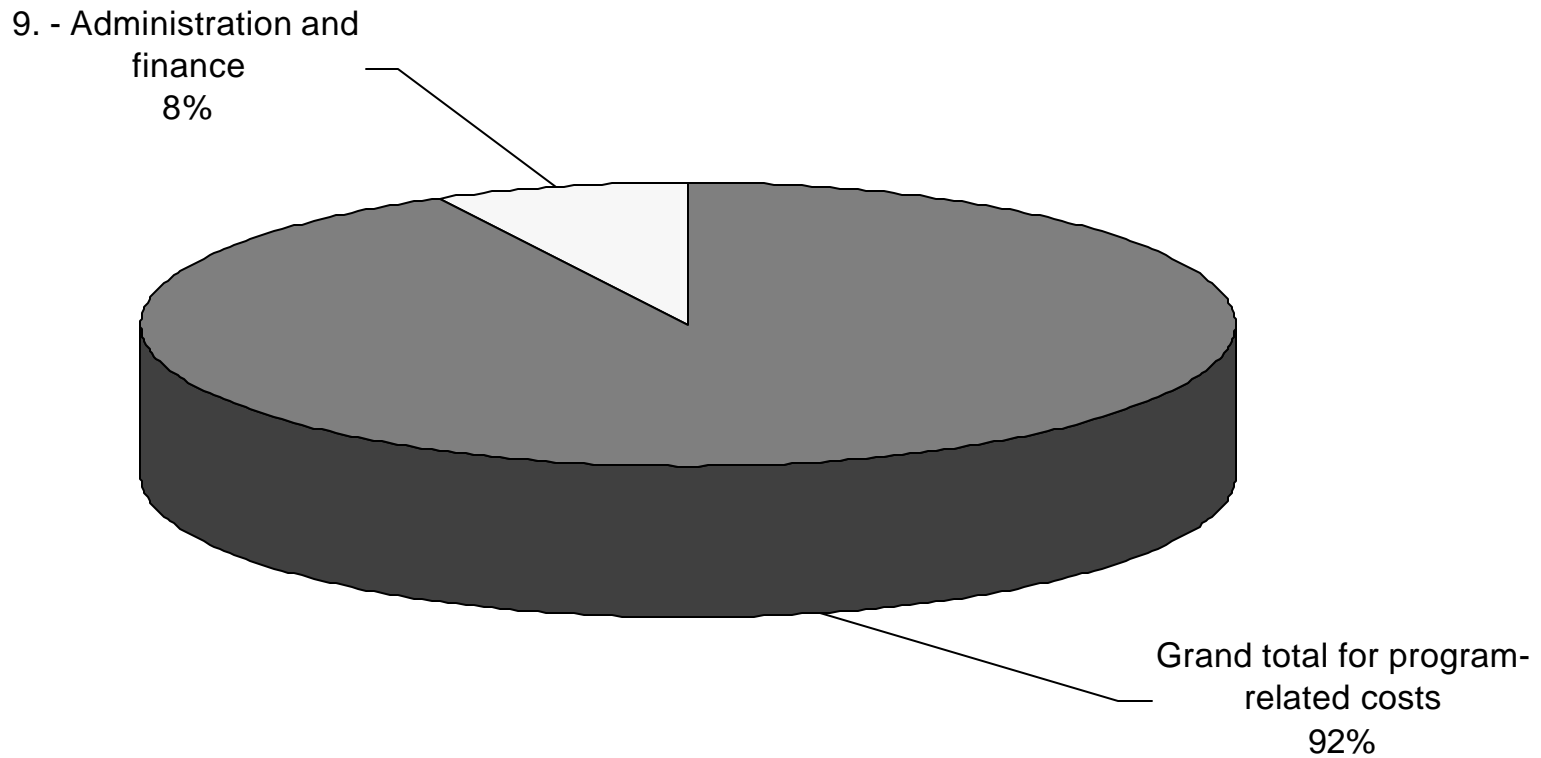
	2001
Description	
1 - Program	13,016,000
2 - Administration and finance	1,073,000
Total Expenses	14,089,000

Revenues

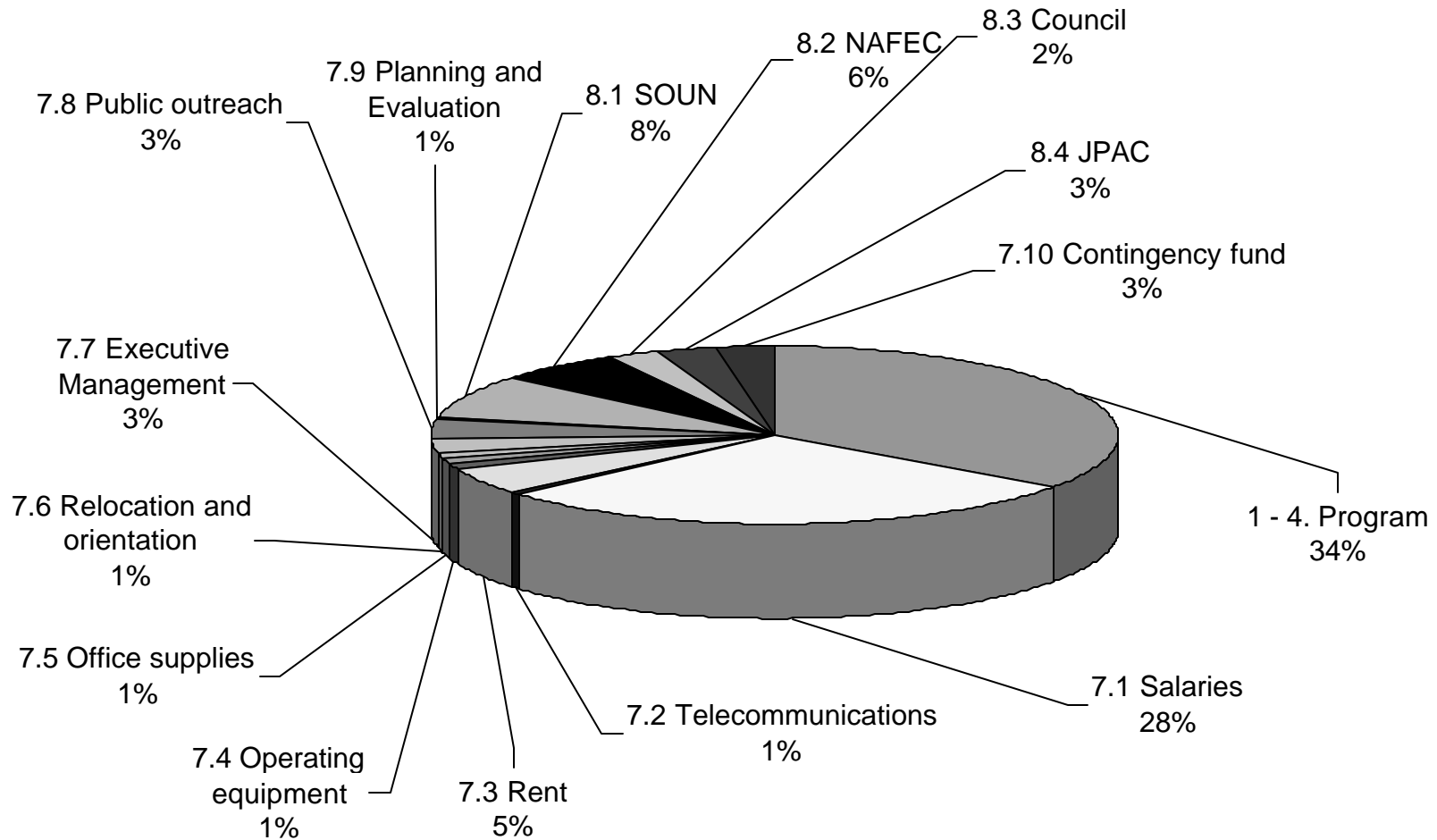
	2001
Income	
Parties' contributions	13,293,000
Carry over	663,000
Interest	133,000
Total Income	14,089,000

Graphic Overview

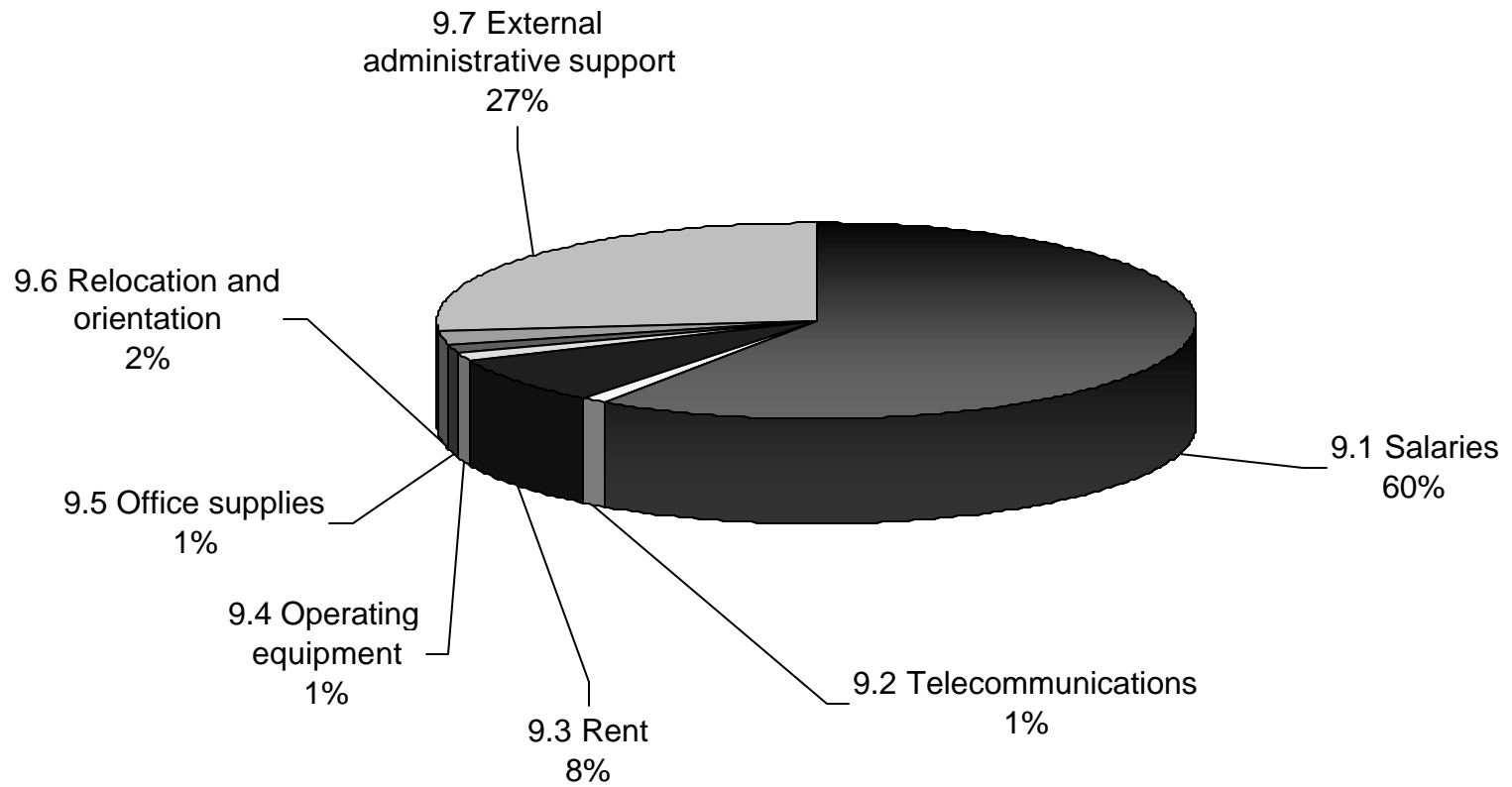
GRAPHIC OVERVIEW—2001



PROGRAM RELATED COSTS—2001



ADMINISTRATION AND FINANCE—2001



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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Profile

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

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

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

Mission

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