

PROVISIONAL ABBREVIATED VERSION

**SECURING THE CONTINENT'S BIOLOGICAL WEALTH:
TOWARDS EFFECTIVE BIODIVERSITY CONSERVATION
IN NORTH AMERICA**

WORKING DRAFT OF A STATUS REPORT FOR STAKEHOLDER INPUT

Prepared as the Integrated Baseline Summary Report for the
Strategic Directions for the Conservation of Biodiversity Project 99.02.01

By the Project Team:

Arthur J. Hanson
IISD

Tundi Spring Agardy
Conservation International

Ramón Pérez Gil Salcido
FAUNAM A.C.

For the
Commission for Environmental Cooperation
Montreal, Canada

March 7, 2000

**SECURING THE CONTINENT’S BIOLOGICAL WEALTH:
TOWARDS EFFECTIVE BIODIVERSITY CONSERVATION IN NORTH AMERICA
WORKING DRAFT OF A STATUS REPORT FOR STAKEHOLDER INPUT**

TABLE OF CONTENTS

PREFACE	2
EXECUTIVE SUMMARY	3
1 INTRODUCTION	9
1.1 BIODIVERSITY AND THE CEC	9
1.2 PROJECT OBJECTIVES	10
1.3 SCOPE, FRAMEWORK AND METHODS	11
6.1 DRAFT RECOMMENDATIONS	14

PREFACE

This report is the first step in a longer term process, the ultimate goal of which is the development of a strategy for the Commission for Environmental Cooperation for improving biodiversity conservation throughout the continent. The project is a bold effort—not a North American biodiversity strategy—but rather guidance to CEC on how best to catalyze conservation action that will be effective at the continental level. This doesn't necessarily mean only initiatives that span borders or deal with shared species, it could also mean fostering cross-country learning and common responses to shared problems.

Instead of country-by-country reporting with subsequent integration of findings, we have been trying to put together a continent-wide analysis. This has made our task more difficult, since we could not retreat into the familiar corners of our individual national experience and knowledge. Instead we have challenged ourselves to work with units that do not easily configure with political boundaries. We also faced a mountain of material, for this is a subject area of major concern, not only for the three governments, but also for the many interests involved in land, water and ocean conservation in the private sector and in civil society. We cannot do justice to all the material we have reviewed, and our citations have been selective. Certainly we have not documented all the past and present forms of cooperation that have developed among the three countries in relation to biodiversity and its protection. As would be expected, these relationships, whether formal or informal, and with or without governmental involvement, are varied and sometimes highly productive. Therefore there is a solid basis of precedents and experience for the future basis of cooperative planning and action.

The report is intended to form a basis for discussions at meetings in the coming months, a springboard for discussions with a number of conservation leaders, and the foundation for receiving inputs from others via the CEC website. We consider the document a working draft, open to further refinement as appropriate. In particular, our thoughts on recommendations and reflections on questions we believe to be important, must continue to be refined.

If there is one thought that ought to be kept in mind while reading this document, it is that, while there has been a great deal of progress in the development of protected areas and strategies for recovery of some species, the challenges are increasing in magnitude and complexity. The trends in the status of much of the continent's biodiversity are heading in the wrong direction. Some of these trends are among the highly visible species like grizzly bears, salmon and old growth tree species. But we are equally, or even more concerned about what is happening in desert ecosystems, with their high level of endemic species, the many small watersheds under threat in the southeast of the US, and the damage to high diversity tropical ecosystems in Mexico. We have read many wake-up calls, frequently issued by units of the individual governments themselves. It is our conclusion that the time for accelerated and effective action is at hand, and that such action can be made more effective if at least some elements take place at a continental level.

EXECUTIVE SUMMARY

This draft integrated baseline summary report on North America's biological diversity and the challenges inherent in conserving it represents the first step in a process started by the Commission for Environmental Cooperation (CEC). The report takes stock of the situation regarding biodiversity at all levels—genetic diversity, species diversity, and habitat diversity—and in all biomes, marine, freshwater and terrestrial. It assesses potential opportunities for the CEC to catalyze action, forge new partnerships, and help to stem the tide in biodiversity loss. The CEC commissioned the report under a project entitled “Strategic Directions for the Conservation of Biodiversity.” The project is intended to provide CEC with a clear sense of direction and priorities to effectively influence biodiversity conservation in North America.

There are three parts to the project:

- Diagnosis of the current condition/state of biodiversity in the region, taking into account national strategies and action plans;
- Development of lines of action with broad support from the countries and diverse stakeholders, based on ecoregion and conservation issue priorities that emerge from analysis and consultation;
- Creation of an implementation plan detailing mechanisms, projects and information management systems that CEC can catalyze to foster continental biodiversity conservation.

The ultimate goal is to develop a long-term agenda for CEC, with a final report entitled Conservation of Biodiversity in North America – a Strategic Plan for the Commission for Environmental Cooperation to be completed by mid-2000.

Investigating the complexities of how biodiversity is perceived and dealt with in the three North American countries required extensive review of the published and gray literature, as well as some discussion with key agencies and individuals. The materials reviewed during this assessment include strategic documents of national groups and international organizations that establish priorities for conservation; official governmental reports of the three countries; documents put together by the CEC on several trinational topics related to biodiversity; and critical scientific papers on biodiversity.

The status report provides the reader with an overview of the current situation regarding North American biodiversity and its conservation, as well as perceptions about its significance in our society, and the threats, trends and opportunities that are discernable. Draft recommendations are provided to stimulate discussion about alternatives to unsustainable development and suggest how best to address the underlying causes of biodiversity decline. Also provided are reflections on important questions and issues that should be revisited as the process proceeds in order to stimulate fruitful discussions and, ultimately, an effective CEC strategy for North American biodiversity conservation.

Focusing on the threats to biodiversity, and the downward spirals affecting the continent's biological wealth, can create a sense of negativism, yet the focus of this effort has also been on the concrete identification of opportunities. These opportunities concern both geographic priorities established by identifying key ecoregions, and priorities for broader action. Importantly, the greatest opportunity that exists may be in developing a common understanding about the importance of biodiversity, and the shared responsibility for protecting it, in all three countries and in all sectors of society.

While the continent now has many thousands of protected areas, strong conservation groups, and governmental commitments to maintaining biodiversity, it is well to remember that over the past 200 years North America has experienced some of the most dramatic landscape transformations and changes in species abundance of any part of the world. In the process of finding solutions to our transportation, settlement, energy and other material needs, remaining natural environments have been placed under enormous stress, and continue to be fragmented, polluted or damaged in other ways. This decline of habitat, plus specific hunting and harvesting practices, have led to a crisis that is widespread and not confined to any one country or region. Given the paradox that habitat fragmentation in North America is a consequence of both wealth and poverty, most human activities involving natural landscapes create consequences for biodiversity.

Marine and freshwater habitats are under severe threats as well. The combination of overfishing, habitat alteration, land and sea-based sources of marine pollution take a severe toll. Added to this problem are poorly understood environmental fluctuations—potentially exacerbated by global warming—that appear to play a major role in destabilizing fish, bird and marine mammal populations. The filling of coastal wetlands, the destruction of mountain creeks important to anadromous salmon, and the damage caused to marine reefs as a consequence of excessive sedimentation are additional threats faced by marine life throughout North America.

The continent's freshwater environment may be the most vulnerable habitat of all. It can be completely altered as a consequence of dams, changing pollution load, land fill and other action. The flora and fauna of most North American rivers, lakes and wetlands are adapted to specific conditions and will not survive outside of a narrow range of conditions. Decades of heavy metal contamination, high BOD levels, invasive species impacts, and other factors have simplified or depleted the biota of many aquatic systems. The good news is that many of these systems have been repopulated and restored to good health. On the other hand, the situation continues to worsen for many aquatic life forms, regrettably too well represented on threatened species lists.

The commitment to protected areas in both terrestrial and aquatic regimes is growing in all three countries, but for some crucial biomes like the oceans, adequate protection is still at an early stage. The targets for completing representative systems of protected areas are not being met in a uniform fashion, and the task grows more difficult in the face of competing development interests. Beyond the strategic goal of representation, utilizing protected areas for the purposes of resolving user conflicts or carrying out ecological restoration remains rare throughout the continent. Even long established parks and

wilderness areas are challenged as managers attempt to maintain ecological integrity in the face of burgeoning demands for their use and inadequate funding. Ecological management regimes have proven difficult to define and apply. Although there is growing realization that isolated “islands” of protected areas cannot guarantee biodiversity conservation, the countries have not rallied to create substantive regional action.

The shortcomings in management practices extend to major forest and agricultural regional protection. While useful advances in sustainability and biological conservation are occurring, there are still major problems. The challenge of maintaining songbirds and other migratory forms such as the monarch butterfly are pertinent examples. The “nibbling” away of natural habitat as a consequence of expanding agriculture has been a long-standing matter throughout the continent. With growing numbers of farmers, it is a major problem in rural areas of Mexico at present. Although success stories exist, for example, growing low-impact shade coffee in forested areas, these stories are unfortunately outnumbered by examples of improper land use and subsequent biodiversity loss.

Climate change is likely to exacerbate the biodiversity crisis. In drought-stricken regions, where water tables are already drawn down by excessive use, there may be permanent vegetation and ecosystem damage. In the far north, the extended ice and snow-free periods will be detrimental to coastal carnivores unable to maintain their hunting regimes, and the destruction of permafrost will have major repercussions for both plant and animal communities. In the south, coral reefs and mangrove systems will likely be unable to keep up with rates of sea level rise and cope with the stresses caused by warming waters. Throughout North America there likely will be dramatic adjustments of species ranges and other impacts that will be difficult to manage. And highly stressed systems such as estuaries and barrier islands, already weakened by overuse and degradation, will be highly vulnerable to ecological collapse in the face of severe storm events and other consequences of climate change.

Domestic and international trade patterns create an ecological footprint on major ecozones, especially western forests, the Great Plains, the Mississippi and Great Lakes, and ocean areas such as the Gulf of Maine. These patterns are dynamic, affected by new approaches to agriculture and biotechnology, by the changing demands of both domestic and international consumers, and through side effects such as the introduction of exotic species via transportation of people and goods. It is wrong to conclude that trade generally causes ecological crisis. Trade may exacerbate existing factors that create crisis. But trade also should help to create solutions. For example, the role concerned consumers have played in bringing about sustainable forest practices is significant. The value-added of ecotourism provides additional incentive to protect exceptional areas. Importantly, the added wealth accruing to countries from increased trade can be invested in biodiversity conservation.

The science of plant and animal systematics is inadequate in all three countries. More species are unknown than known, and the problem will become even more complex

given the new demands of understanding biotechnology impacts. The science of managing and restoring large-scale ecosystems is still extremely inadequate. This is highlighted in the face of dramatic declines in fisheries production and other natural capital.

The major threats to biological diversity that have emerged in the course of this analysis can be classed into four broad categories: those having to do with major ecological impacts of human activity, those having to do with constraints in decision-making, those having to do with ineffective conservation planning and resource management, and those having to do with lack of knowledge. We also identify major trends. Some are negative—continued decline in species and habitat fragmentation. And some are positive—greater public awareness of the issues, growth in public-private partnerships, increasing international pressure for sustainability, and greater attention to biodiversity planning and strategies.

What is important to recognize is that the nature of the North American biodiversity crisis, be it habitat alteration, species loss, introduction of exotics, or changes in resource abundance, is like environmental crises everywhere: generally creating a cascading effect. This ripple is first felt locally, then nationally and regionally, with effects ricocheting to other species, ecosystems and economies. Conversely, environmental crises commonly coincide with economic and financial difficulties. In these circumstances, funding to meet even basic conservation needs becomes very difficult. Biodiversity crises have strong local impacts—hurting those closest to the source of biological wealth—therefore the solutions must involve participation of local communities and resource users, a point that sometimes has been lost even in the best intended plans for conservation.

We report on public perception of the problem of biodiversity in all three countries, and institutional and governmental responses to date. In assessing these perceptions, and in identifying key threats to biodiversity and major trends in biodiversity loss, we are able not only to report on the scope of the crisis on North America, but also the myriad opportunities that exist to use our natural heritage more sustainably. Some of these opportunities relate to specific regions; we detail fifteen such areas from the Pacific coastal systems running from Baja to Alaska, to the cloud forests of Mexico, and the beleaguered Great Plains. Other opportunities are more generic; these we present in the form of preliminary recommendations for further investigation and discussion.

These recommendations are the logical outcome of identifying key threats to biological diversity and the main constraints that have surfaced as governments and other stakeholders have tried to deal with those threats. They are:

- Recognize the seriousness of the loss of biodiversity and invest in applied research that gives better understanding of all of the key factors contributing to the problem.
- Assess and report on the State of North American Biodiversity at periodic intervals of 3-5 years.
- Focus primarily on habitat protection needs rather than single species concerns.

- If a single species is selected for attention it should have continent-wide distribution, be migratory among the three countries, or play a ‘keystone’/‘umbrella’ role in a specific ecosystem or ecoregion type common to two or three of the North American countries.
- Select a small number of ecoregions where CEC might play a catalytic role in fostering biodiversity conservation.
- Focus on invasive species that are likely to have a direct effect in all three countries, or affect migratory species that move between the three nations.
- Champion (and perhaps help to pioneer) buffer and corridor arrangements on public and private lands that surround biodiversity conservation core areas.
- Concentrate a major portion of CEC effort on assessing performance of newly emerging approaches for biodiversity conservation of interest to the three countries.
- Focus intense trilateral effort on Mexican priority ecoregions since these are high in biodiversity, face great pressures from development and, in some instances, play an important role in the life cycles of northern migratory species.
- Develop an aboriginal component to the biodiversity strategy in order to take into account the unique perspective, knowledge and needs of native populations in the three countries.
- Assist, where appropriate, in the development of harmonized laws and regulations designed to protect biodiversity at a continental level.
- Help develop more appropriate incentives for biodiversity conservation, especially at the ecosystem and landscape scale, and work with governments to identify and help eliminate perverse incentives such as subsidies and tax measures that work against environmental and biodiversity protection.
- Catalyze technical efforts to ensure that a continental database produces truly compatible and comparable information on biodiversity, and factors affecting biodiversity.
- Help to develop accurate measure of public views about biodiversity conservation within important subgroups in each country so that such information can be available for decision making. The CEC should pay particular attention to perception of continental biodiversity knowledge and interest.
- Explore ways of linking CEC’s public complaint process with information on biodiversity status.

We strongly believe that this document must be dissected, analyzed and enriched by the comments and input of the various groups and individuals that review it in order to be useful. The document will be distributed to selected individuals within the governments of the three countries and to a number of stakeholder groups, with follow-up interviews by the authors. Input will be solicited from the CEC Biodiversity Conservation Program Head and the JPAC Biodiversity Working Group. In addition, through the extensive distribution of questionnaires and the dissemination of the document on the CEC website, citizens of all three countries will be invited to provide comments.

Informed by this document and the other inputs, governments will seek to reach agreement on priority issues and ecoregions that might hold particular value for continental action. This assessment will be presented to key stakeholders so as to better

define the lines of action and for additional feedback. The project will culminate in a final report entitled, Conservation of Biodiversity in North America – a Strategic Plan for the Commission for Environmental Cooperation. The real conservation work, however, will only be beginning. We believe the CEC could have a valuable role to play in catalyzing new, innovative, and effective continent-wide approaches to the conservation of North America's great natural wealth and heritage.

1 INTRODUCTION

1.1 Biodiversity and the CEC

North America, with its varied ecosystems and high levels of biodiversity, as well as its demonstrated commitment to conservation, faces a critical challenge. Existing strategies for biodiversity conservation on the continent are not coping with the impacts caused by ever-increasing levels of development. Nor are they likely to address adequately the relatively new problems of climate change and increased numbers of invasive species. Quality of life, access to ecological services, and sustainable use of natural resources are at stake. It is time to seek new ways and means to protect the richness of life on our continent. New strategies must find acceptance and be implemented at national and local levels. Importantly, it is becoming clearer that regional and continental action is not only a potentially effective approach but also an essential one. There are some remarkable precedents for such shared action, especially for migratory birds. The question is what more can be done to identify and act upon biodiversity matters of continental significance, and effectively catalyze the concerted efforts of the continent's three countries?

Canada, Mexico, and the United States not only share many ecosystems and migratory species, but are also increasingly linked through economic, social and cultural exchange. In recognition of this shared environment and the consequent shared responsibility, environmental provisions were included in the North American Free Trade Agreement (NAFTA). These provisions in NAFTA were supplemented by a side agreement, the North American Agreement on Environmental Cooperation (NAAEC). NAFTA is the first trade agreement to include environmental commitments and as a result it has opened the door to unique opportunities for environmental cooperation. The Commission for Environmental Cooperation (CEC) was created by the NAAEC to facilitate this cooperation with the goal of conserving, protecting and enhancing the North American environment. CEC's mandate specifically addresses issues of biodiversity conservation. For example, the CEC Council is to consider developing recommendations on transboundary and border environmental issues, such as the protection of endangered and threatened species; exotic species; the conservation of wild flora and fauna and their habitat (specially protected areas).

The CEC has implemented a number of trinational biodiversity initiatives including the North American Biodiversity Information Network (NABIN), the Ecological Regions of North America, the Marine Global Plan of Action in the Gulf of Maine and the Bight of California, and the North American Bird Conservation Initiative (NABCI). In each of these initiatives, CEC has collaborated with a wide range of partners in order to make available essential information, coordinate efforts and develop regional strategies. The CEC has also played an important role in exploring the links between biodiversity conservation and economic benefits within the context of its Green Goods and Services

Program, and through detailed examination of specific initiatives such as shade coffee and ecotourism.

CEC has supported biodiversity conservation efforts through the North American Fund for Environmental Cooperation (NAFEC). Since 1996, NAFEC has made 127 grants totaling USD 4.8 million to community-based environmental projects. Many communities have used these grants to implement innovative approaches to conserving biodiversity while strengthening their economic base. Others have collaborated to protect transboundary species and habitat.

Through exchanges facilitated by the CEC, stakeholders—ranging from national governments to local communities, conservation and environmental organisations, native peoples, and businesses—can draw upon their experience to contribute to CEC’s strategic plan to conserve North America’s biodiversity. Such a plan will assist the CEC by providing a framework for its work. In turn, the CEC plan and subsequent initiatives will add value to the collective efforts of others.

This document represents the first step in a process that will continue for a number of months. This process was instigated by the CEC under a project entitled *Strategic Directions for the Conservation of Biodiversity* – a project intended to provide CEC with a clear sense of direction and priorities to effectively influence biodiversity conservation in North America. This project has three parts:

- Diagnosis of the current condition/state of biodiversity in the region, taking into account national strategies and action plans;
- Development of lines of action with broad support from the countries and diverse stakeholders, based on ecoregion and conservation issue priorities that emerge from analysis and consultation;
- Creation of an implementation plan detailing mechanisms, projects and information management systems that CEC can catalyze to foster continental biodiversity conservation.

The ultimate goal of this project is to develop a long-term agenda for CEC, with a final report entitled *Conservation of Biodiversity in North America – a Strategic Plan for the Commission for Environmental Cooperation* to be completed by mid-2000.

1.2 Project Objectives

The specific objectives of the project are to:

- Define key issues affecting conservation and sustainable use of marine and terrestrial biodiversity at a North American scale that might benefit from concerted action under the auspices of the CEC.
- Compile a list of areas that, due to their continental significance, deserve prime attention; and then identify priority regions for North American cooperation.

- Identify needs and priorities for capacity building in the various sectors involved in North American biodiversity conservation in which the CEC can play a significant role.
- Stimulate and capture the thinking of members of different sectors of society over critical issues and topics related to the conservation of North America's biodiversity (especially the challenges, bottlenecks, root causes of problems, priorities and opportunities that conservation of the continent's biodiversity present.)

The final *Strategic Plan* that will emerge will take into account the unique features and philosophy of the CEC. These include favoring prevention as a principle, promoting cooperation between the three NAFTA countries, producing information to support decision-making, supporting regional capacity building, adding value to regional actions, promoting public participation, basing actions on solid scientific principles, and promoting networks that integrate regional stakeholders.

1.3 Scope, Framework and Methods

To avoid misinterpretation, the authors wish to point out inherent limits concerning the scope of this report and their role in the project. First and foremost, this project will produce recommendations mainly in support of potential CEC roles. While this status report documents many of the key issues and concerns about biodiversity in North America, the observations contained herein are focused on those approaches that could benefit from CEC action. This document is not intended to be a Strategy for North America's Biodiversity, nor is it the answer to all of North America's environmental problems. Clearly there are extremely serious environmental problems on the continent that demand urgent responses but are beyond the reach of this effort.

Secondly, this report is essentially a tour through the complexities of how biodiversity is perceived and dealt with in the three North American countries. It is based on extensive document review that highlights some of the most important reading material and information sources on North American biodiversity, including:

- documents of national groups and international organisations on priorities for conservation (for a single region, a country or world wide);
- official governmental reports of the three countries, including documents resulting from CBD country reports and the National Biodiversity Strategy efforts in Canada and Mexico;
- documents put together by the CEC on several trinational topics related to biodiversity;
- contributions from personal interviews with individuals of different sectors (public, private, academic, social and non-governmental organizations); and
- papers on biodiversity thought to be critical by the authors.

The document also draws upon the collective experience and views of the authors—what we feel are the areas of greatest concern for conservation of biodiversity in North

America. Up to this point our work has not been based on a formal, systematic and comprehensive interview process to draw in the views of all stakeholders, though this is clearly the necessary next step.

Thirdly, we believe that the document should be dissected, analysed and enriched by the comments and input of the various groups and individuals that review it. The document will be distributed to selected individuals within the governments of the three countries and to a number of stakeholder groups, with follow-up interviews by the authors. Input will also be sought by the CEC Biodiversity Conservation Program Head and the JPAC Biodiversity Working Group. In addition, through the extensive distribution of questionnaires and the dissemination of the document on the CEC website, citizens of all three countries will be invited to provide comments.

This report also will act as the platform document or discussion paper to be used in a meeting with senior level officials involved in biodiversity conservation in the three countries. Through this meeting, the Commission's goal is to achieve a broad sense of agreement among officials on priority issues concerning North American biodiversity conservation and criteria that could be used to assess regional priorities.

Lastly, once agreement is reached at the governmental level, the priority issues and regions will be presented to key stakeholders so as to better define the lines of action and seek additional feedback. Part of this process will include a workshop in which conservation experts from the three countries will use the criteria and rankings agreed to by the governments, in order to determine priority ecoregions. All of these activities will culminate in a final report entitled, *Conservation of Biodiversity in North America – a Strategic Plan for the Commission for Environmental Cooperation*.

The following status report should provide the reader with an overview of the current situation regarding North American biodiversity and its conservation, as well as perceptions about its significance in our society, and the threats, trends and opportunities that we have been able to discern. We provide draft recommendations to stimulate discussion about alternatives to unsustainable development and how best to address the underlying causes of biodiversity decline. We also provide some reflections on important questions and issues that have arisen and that we believe should be revisited as the process proceeds in order to stimulate fruitful discussions and, ultimately, an effective CEC strategy for North American biodiversity conservation.

To the maximum extent possible, we have taken into account all of North America's biodiversity (terrestrial, aquatic, and marine, be it plants, mushrooms, vertebrates or invertebrates). We deliberately tried to avoid the trap of focusing primarily on "charismatic" species, or even on keystone species and threatened species, since we strongly believe that the future well being of North American biodiversity will depend upon better protection of whole ecosystems. Recognizing this has meant we have had to work with systems that are not easily quantifiable and not configured to political boundaries.

When reviewing the many problems affecting the continent's biological wealth, it is easy to slip into a sense of negativism, focusing on threats and downward spirals. We have tried to focus our efforts on the concrete identification of opportunities. These opportunities concern both geographic priorities established by identifying key ecoregions, and priorities for broader action. Perhaps the greatest opportunity exists in developing a common understanding. It is thus important for us to recognise just how much might be accomplished through shared understanding and action.

6 Conclusions

Any conclusions reached at this point of the project should be considered as tentative and open to both question and suggestion. It is useful to document our joint views, reached after much discussion, on where the CEC might focus attention. The list of draft recommendations (section 6.1) is quite long, and it would be necessary to make choices on central focal points. However, we believe all the points raised need to be addressed. We also raise a number of questions that we call our Reflections (section 6.2). These are ideas that we have had in the course of the work to date that require further thought and inputs. They are included in order to elicit responses from stakeholders, and to guide further inputs that we may be able to provide.

6.1 DRAFT RECOMMENDATIONS

This report is based on a few underlying assumptions: 1) that biodiversity is in crisis in North America, 2) that not enough has been done to fully understand the problem and respond to it, and 3) that too few good mechanisms currently exist for harmonizing conservation approaches between Canada, US and Mexico in order to deal with threats to biodiversity at the appropriate scales.

From these assumptions, supported by our analysis of the state of biodiversity in North America, several preliminary recommendations emerge. We must reiterate that these are preliminary recommendations that do not fully represent the differing viewpoints of all stakeholders. Instead, they are the logical outcome of identifying key threats to biological diversity and a response to the main constraints that have surfaced as governments and other stakeholders have tried to deal with those threats. Although we have numbered them for ease of reference, the recommendations are not listed in order of priority; instead we suggest that all the recommendations should be addressed fully in order to address the complex problem of biodiversity loss in North America.

Draft Recommendation 1. Recognize the seriousness of the loss of biodiversity and invest in applied research that gives better understanding of all of the key factors contributing to the problem.

Rationale:

- Biodiversity as an issue has not achieved the high profile that other environmental issues have on the continent;
- Biodiversity losses should be examined in light of all factors leading to it, and assessment should extend to what drives those factors;
- Full and rigorous assessment of drivers is needed for better predictive capability and will allow decision-makers to be more proactive and efficient in the future.

Draft Recommendation 2. Assess and report on State of North American Biodiversity at periodic intervals of 3-5 years.

Rationale:

- Comprehensive and fully independent objective information is hard to come by;
- Confusing array of regions and other classifications—could become more harmonized via accepted reporting systems;
- “Right to know” is not fully met now—information adequately reflecting gravity of situation may accelerate action and understanding of needs;
- CEC should examine state of environment reporting and consider how biodiversity conservation reporting should be conceptually linked and whether existing data are adequate.

Draft Recommendation 3. Focus primarily on habitat protection needs rather than single species concerns.

Rationale:

- CEC could have impact by focusing attention to problems of ecosystem or larger scale, where there are needs such as maintaining ‘ecological integrity’, interconnectedness/corridors, and opportunity to conserve species complexes;
- This ecosystem-based approach is the way for the future in the view of conservation experts.

Draft Recommendation 4. If a single species is selected for attention it should have continent-wide distribution, be migratory among the three countries, or play a ‘keystone’/‘umbrella’ role in a specific ecosystem or ecoregion type common to two or three of the North American countries.

Rationale:

- Much of the existing biodiversity conservation focus is justifiably at the single species/‘charismatic species’ level. This level of attention should be utilised for its full potential in raising awareness, but keeping in mind that by the time a crisis exists, options are already limited.

Draft Recommendation 5. Select a small number of ecoregions where CEC might play a catalytic role in fostering biodiversity conservation.

Various criteria might be applied in the selection, including: all three countries are represented (e.g. Great Plains, west coast marine systems); they are identified as globally significant ecoregions of North America (e.g. Global 200 sites of WWF); the areas are significant to survival of particular migratory species (e.g. Mexican habitat of Monarch butterfly); the ecosystem types are under great stress throughout the continent (e.g. riparian ecosystems).

Rationale:

- Some important ecoregions are under-represented in existing initiatives of important conservation organizations;
- It presents an opportunity to take an integrative view and to “ground truth” the work of CEC in actual situations;
- Unique role of CEC, for example, in dealing with monarch butterfly, where there is not such an identifiable advocate, unlike the case of migratory whales, waterfowl, etc.;
- Can highlight ecosystem/habitat approach to biodiversity protection.

Draft Recommendation 6. Focus on invasive species that are likely to have a direct effect in all three countries, or affect migratory species that move between the three nations.

Rationale:

- The non-native species that have the greatest potential to harm the greatest suite of biodiversity should emerge as priorities for management action and control on further spread.
- Multi-country safeguards are needed urgently to do a better job of slowing down the rate of new entries.
- The problem is largely a trade and environment issue, although not always recognized as such.

Draft Recommendation 7. Champion (and perhaps help to pioneer) buffer and corridor arrangements on public and private lands that surround biodiversity conservation core areas.

Such areas currently include biosphere reserves, park buffer zones, etc. CEC roles could include holding meetings designed to highlight particular approaches, promote harmonization of approaches across international boundaries (modeled after Y2Y), and help to gather and disseminate information on “best practices”.

Rationale:

- Small ‘islands’ can be connected to form significant and sufficiently protected areas. This is perhaps the number one challenge for North American biodiversity protection;
- CEC can deal with transboundary cases more effectively than some other organizations;
- CEC can promote mechanisms/tools to make it happen more widely (e.g. see incentives, law recommendations).

Draft Recommendation 8. Concentrate a major portion of CEC effort on assessing performance of newly emerging approaches for biodiversity conservation of interest to the three countries.

A prime example is the issue of marine protected areas (MPAs), which are urgently needed but at an early stage of development in the three countries.

Rationale:

- CEC is an ‘honest broker’, able to convene various groups to examine experience likely to be subject to many interpretations;
- Rationale for a concerted effort is very strong, given the rapid decline of marine resources and apparent common causes in each country.

Draft Recommendation 9. Focus intense tri-country effort on Mexican priority ecoregions since these are high in biodiversity, face great pressures from development and, in some instances, play an important role in the life cycles of northern migratory species.

Rationale:

- CEC can be a forum leading to more attention on Mexico’s biodiversity situation and, possibly, help to marshal greater financial and other resources;
- CEC can link its trade and environment work, and possibly provide a focus via NAFEC.

Draft Recommendation 10. Develop an aboriginal component to the biodiversity strategy in order to take into account the unique perspective, knowledge needs of native populations in the three countries.

Rationale:

- This has been a weak point in many current conservation efforts. The CEC could foster new approaches;
- The interests and reach of many aboriginal groups cross national boundaries and justify the interest of a tri-country body like CEC.

Draft Recommendation 11. Assist, where appropriate, in the development of harmonized laws and regulations designed to protect biodiversity at a continental level.

Such work might require that CEC undertake three-country performance reviews to determine needs.

Rationale:

- There is a considerable body of law, agreements, etc. to which the three countries are signatory and have ratified. Other laws are signed by only one or two countries. And there are law and regulation needs as yet not met in any of the three countries. CEC already has a role in providing basic information and some comparisons among the laws of the three countries;

- The trend is towards taking on more international obligations and harmonizing domestic law. This effort would perhaps speed up the process and enhance efficiency.

Draft Recommendation 12. Help develop more appropriate incentives for biodiversity conservation, especially at the ecosystem and landscape scale, and work with governments to identify and help eliminate perverse incentives such as subsidies and tax measures that work against environmental and biodiversity protection.

Rationale:

- Subsidies are at the root of much habitat destruction;
- Inadequate tax incentives or perverse practices such as taxing capital gains on conservation lands work against protection;
- Adequate protection demands payment in lieu of other economically productive activities. The nature of these incentives and who should pay are matters of international interest for a variety of reasons such as equity, protection of endangered species of concern to all of society, debt-for-nature swaps, emissions trading, trade agreements, etc.;
- The need to examine positive and negative impacts of ecotourism and other ‘non-destructive’ alternative economic activities that may in fact have major impacts on biodiversity.

Draft Recommendation 13. Catalyze technical efforts to ensure that a continental database produces truly compatible and comparable information on biodiversity, and factors affecting biodiversity.

This technical function would help to develop better measures and indicators, and would ensure credibility of a State of Biodiversity Report.

Rationale:

- This approach is in line with CEC’s general approach (knowledge-based and across the three countries);
- This approach does not occur in a systematic way at present, although there are some good experiences to learn from;
- The Biodiversity Convention, Climate Change and other international agreements (such as CITES) provide a rationale and incentive for coordinated information gathering.

Draft Recommendation 14. Help to develop accurate measure of public views about biodiversity conservation within important subgroups in each country so that such information can be available for decision making. The CEC should pay

particular attention to perception of continental biodiversity knowledge and interest.

Rationale:

- This knowledge is not systematically organized for all three countries, nor are there stratified samples available (e.g. rural and city people, by gender, occupation etc.) CEC could be a catalyst;
- The information is needed to determine political interest, levels of confidence in public and private sector biodiversity conservation action.

Draft Recommendation 15. Explore ways of linking CEC's public complaint process with information on biodiversity status.

Rationale:

- Few mechanisms exist for gaining public feedback on the CEC and on biodiversity conservation efforts in North America more generally;
- As part of raising awareness and meeting needs of the public, CEC should explore how new options based on biodiversity protection can strengthen employment and alleviate poverty, especially in high priority situations where there may already be conflict over resource use.