1997 Public Consultations
12 September 1997

The Honorable Christine Stewart
Minister of the Environment (Canada)

The Honorable Carol Browner
Administrator of the United States Environmental Protection Agency

The Honorable Julia Carabias
Secretary of the Environment, Natural Resources, and Fisheries (Mexico)

Dear Members of the Council,

The Joint Public Advisory Committee is pleased to submit to the Council of the North American Commission for Environmental Cooperation (CEC) the executive report on the public consultations held during 1997.

This report includes the recommendations put forth by the public at the meetings conducted on 19-20 March in Mexico City, 14-15 May in Vancouver, and 11-12 June in Pittsburgh.

The underlying purposes of these meetings, convened under the mandate of the Council, were to improve access to information and to encourage the participation of citizens, not only to ascertain their outlook on environmental issues and their priority in the region, but also to pave the way for greater involvement on the part of the public in the real and effective improvement of the environment in North America.

The Joint Public Advisory Committee acknowledges the CEC Council's wish to promote public participation in order to fulfil the objectives of the Agreement signed by the three countries and to encourage the effective operation of the Commission.

Sincerely,

María Cristina Castro
JPAC President

1997 Public Consultations Report to Council
Table of contents

Presentation

Under a mandate of the Council of the North American Commission for Environmental Cooperation (CEC), the Joint Public Advisory Committee (JPAC) has held three annual series of public consultations since 1994, when the CEC was created. The meetings have addressed various issues considered to be essential to the preservation of the region's environment by the environment ministers of the three countries.

The formats applied for public consultations by the JPAC have continuously evolved from one meeting to the next and, as a result, public participation has improved quantitatively and qualitatively. Constant throughout was the CEC's unwavering commitment to listen to members of the public who are interested in halting the deterioration of the environment, making known the priorities held by the public, and participating in environmental decision-making.

In 1997, JPAC tested a new format for public participation. This includes preliminary seminars during which expert consultants provide the attendees with updated information on key points of the issues to be examined. Also, individuals responsible for the CEC programs and projects address the public directly on work in those areas.

The seminars are followed by specific workshops, which allow for an in-depth examination of essential aspects of the topic under consideration and an exchange of ideas among the participants. JPAC members coordinate the tasks and the consultants direct summary report preparation. Workshop discussions are summarized for the public during a closing plenary session.

In order to strengthen the public's connection to the ongoing work of the CEC, the JPAC has elected to hold its first three regular meetings in the same locations as the public consultations. Attendees were invited to participate as observers and then given the opportunity at the end of the meetings to voice their opinions.

There was a considerable increase in the number of participants during the 1997 series of public consultations (199 in the Mexico meeting, 108 in Vancouver, and 162 in Pittsburgh). Beyond the increase in the number of attendees, the participants were also much more knowledgeable. It was notable that two important studies on the implementation of the North American Agreement for Environmental Cooperation (NAAEC) were also received.

This year, the CEC Secretariat provided the public with preliminary reports for the consultations, which allowed attendees to familiarize themselves with the discussions of previous meetings and be briefed on the issues, thereby facilitating greater continuity throughout the three sessions.

In addition to the subjects addressed that were indicated in the Council's mandate, members of the public were afforded the opportunity to voice their opinions about other environmental issues, including the NAAEC evaluation process undertaken in accordance with Article 10.1 (b) of the Agreement.

At the final session of the Pittsburgh meeting, the JPAC member responsible for coordinating each workshop presented a personal view on the subjects addressed.

The purpose of this report is to submit to the CEC Council the results of its fulfilled mandate, to provide the public with the results of the consultations, and to convey to the Secretariat valuable contributions related to the 1998 Work Program.

Joint Public Advisory Committee, Summer 1997.

1. Introduction

The North American Agreement on Environmental Cooperation (NAAEC), which was implemented by Canada, Mexico, and the United States in 1994, was the first formal environmental agreement ever adopted in parallel with a trade agreement. The Commission on Environmental Cooperation (CEC), created by NAAEC, also set a precedent by including as one of its components a public, nongovernmental advisory group.

The Joint Public Advisory Committee (JPAC) was established to advise both to the CEC Council, composed of cabinet-level or equivalent representatives of the three countries, in its deliberations, and to the CEC Secretariat in its planning and activities. Composed of fifteen members, five from each country, JPAC seeks to promote continental cooperation in ecosystem protection and sustainable economic development and to ensure active public participation and transparency in the actions of the full Commission. Based on this principle, JPAC has been charged by the Council with reaching out to members of the public who are interested in and affected by the work of the Commission.

In undertaking this mandate, the Commission convened public consultations in 1997 in Mexico City (19-20 March), Vancouver (14-15 May), and Pittsburgh (11-12 June). The objectives of the consultations were to provide the Council with

a sense of the concerns, priorities, and aspirations of the participants;
information for use in shaping CEC programs and policies; and
when possible, specific recommendations and general proposals put forth by participants in the three events.

The workshops held in conjunction with each public consultation engaged participants in strategic discussions and solicited their ideas on three key issues in North America: the long-range transport of air pollutants; voluntary compliance with environmental laws; and community environmental information networks. Three consultants-James W. S. Young, SENES Consultants Ltd. (air pollutants); Keith Welks (voluntary compliance); and Yuriria Blanco, Instituto de Ecologia (networks)-prepared the background reports for these workshops. Participants also were given the opportunity at each consultation to raise environmental issues not covered in the three topical workshops, as well as issues relevant to the upcoming evaluation of the operation and effectiveness of NAAEC, four years after its entry into force. The workshops and plenary sessions attracted a diverse audience, composed of representatives of nongovernmental organizations (NGOs), government, and industry, as well as students, lawyers, and consultants.

This report on the three public consultations reflects the views of the participants on the environmental movement in general and the CEC's mandate and work in particular. The recommendations included in the report-not listed in order of priority-are based strictly on the public comments. The final section of the report, entitled "JPAC Perspectives," was prepared by the JPAC members who chaired the public consultation workshops in the three countries. This report will be presented to the Council and disseminated to the public.

JPAC members:

María Cristina Castro (JPAC Chair, 1997)	Jacques Gérin
T. M. (Mike) Apsey	Dan Morales
Guillermo Barroso	Jon Plaut
Peter A. Berle	Ivan Restrepo
Jorge A. Bustamante	Jean Richardson
Michael E. Cloghesy	Mary Simon
Louise Comeau	John D. Wirth

2. Key Issues

2.1 Long-Range Transport of Air Pollutants in North America

2.1.1 Context

Knowledge of the long-range transport of air pollutants dates from the late 1960s when researchers learned that chemicals generated through human activity could be detected in areas (such as the Arctic) remote from their sources of emission to the atmosphere. Indeed, it is now known that many pollutants are transported thousands of kilometers before they are removed from the atmosphere by precipitation.

Mitigating the effects of chemicals that may be transported over distances spanning an entire continent represents a major challenge to lawmakers and regulators in Canada, Mexico, and the United States. These nations recognize that emissions in any one country may affect its neighbors in some way and that their societies and economies are intimately linked.

The identification and management of the significant risks posed by pollutants require determination of their point of release into the environment, the pathways of continental transport, the chemical transformations that occur in the environment, the routes of human and ecological exposures, and monitoring of actual exposure and harm.

2.1.2 Key Considerations

Workshop participants identified seven key considerations in addressing the long-range transport of air pollutants: equity, economic inequalities, action, vision, public education, common sources, and credibility.

Equity must be a vital component of Canadian, Mexican, and US efforts to deal with environmental issues. For example, provision of the requisite training will ensure that pollutants are monitored and inventoried equally in the three countries. This leads to the fundamental premise that actions in this area will require comparable quality of data and understanding across North America. On the regulatory level, such North American products as automobiles should have parity in emission standards. However, equity applied to "standard setting" calls for flexibility that would allow national infrastructures and processes to work. Moreover, a common standard must allow the application of stricter standards to solve a local problem. One may observe that standards are set according to threshold pollutant levels that healthy members of society can tolerate-a key point in equity for the elderly and the very young who are much more sensitive to pollutants. At the research level, the consultation called for more trinational collaboration in the generation and use of environmental data. In addition, greater attention to quality assurance and quality control in environmental analytical laboratories is required to ensure that data generated by these laboratories are more comparable. Equity was also defined as equal access to measured data and a joint inventory of emission sources. Equity does not mean trading one pollutant for another.

Finally, the question was posed: "Can the environment and equity issues be addressed in a mutually supportive way?"

Economic inequalities, that cannot and should not be avoided, require innovative solutions. One example of an innovative approach would be to allow the recipients of pollution to help trace the source of pollution by lending them monitoring equipment and training them in its use. In this area it is important to match the results desired with the correct methodology. A common fund to deal with economic inequalities relating to continental pollutant pathways might take the form of a public/private partnership in which industry becomes a significant resourcing partner to support priority CEC activities. The creation of a "fund" or a "partnership" will inevitably be linked to trade issues. Industrial representatives saw many opportunities for this kind of partnership. The money lenders (banks) are starting to insist that industry think about emissions even if there are no current standards-in other words, they are asking industry to consider future standards now.

Action dealing with what is in pollution pathways is far more important than monitoring the pathways. Thus the three countries should not defer action on reducing pollutant emissions. Certain actions were identified that can and should be taken now. For example, diesel soot is a technical problem that can

be remedied today. A focus on such problems that can be fixed in the short term is seen as part of the "precautionary principle."

Decisions should be taken at the right time, using only the data available when the decision is required.

Setting targets and timelines and enforcing them were seen as vital, no matter what the standard (several participants suggested that a reward system would be better than standards). Some speakers wished for specific actions to be taken within a given amount of time. Specifically, the date of 16 April 1997 was proposed as the start of the 1,000-day countdown to the new millennium-it was suggested that CEC actions be tied to deliverables within this timeframe so that Canada, Mexico, and the United States can enter the twenty-first century with clean air.

Survival depends on having a vision. The concept of adopting a long-term vision of zero anthropogenic emissions elicited opposing reactions. One side found the concept essential to survival of the human race and one that would bring about real change. Opponents of the idea found the concept impractical on a short time-scale-although nearly all participants agreed that the reduction of emissions over time is important. In fairness to both sides, there was evidence in the discussion of a misunderstanding of the "vision" of zero emissions and how fast one would have to reach this as a "goal." But it was very clear that adoption of a vision of zero emissions would require a change in regulatory attitudes and a fundamentally new way of dealing with total emissions than the current approach which deals with emissions source by source. Zero pollution, it was acknowledged, will require zero public waste (entailing reductions in consumption and more intensive recycling).

Generally, the notion of zero emissions raises public expectations that this goal can be met soon. A vision with interim targets that reduce risk was felt to be a better approach than a vision alone. A participant at the Vancouver meeting seemed to capture the essence of the discussion when he said: "In environmental decision-making, always move toward less, always move toward cleaner-and as quickly as possible."

The "ecosystem approach" toward reduced emissions was generally accepted as best because it allows governments to focus on the most important pathways. This requires some precautions, however: carefully avoid the tendency to disconnect ecosystems from human health; do not allow a lack of data on some component of the ecosystem to be an excuse to delay a decision; and recognize that the current organization of the three governments does not favor the ecosystem approach in decision-making. One participant recommended that "environmental standards...be set so as to reduce waste and produce a sustainable environment." It was generally agreed that standards should be used to protect environmental health. The CEC should focus on the true economic costs of standards to bring the whole subject into balance.

The "Cuixmala Model Draft Treaty for the Protection of the Environment and Natural Resources of North America" was presented and generally supported.

Lack of public education was identified as one of the main obstacles to effective action. For example, more information (a Who's Who) is needed on North American scientists and their studies so that the available information is not missed, and the public should have free and open access to all databases. In this connection, transboundary transport must be recognized as everything from molecules in the air to passengers on planes. Some simple explanations of how the various chemicals work and affect people (such as the diagram of the grasshopper effect presented at the consultation) are vital to aid public understanding.

Common sources are being tied more and more to a range of environmental issues. For example, the transportation and energy sectors have many impacts and must be dealt with in an integrated fashion. The agri-pesticides area needs increased attention since some of its effects are very remote (Canadian Arctic) from the source. "Pollution prevention" from these common sources is a vital part of the solution to many environmental issues. In this, the CEC could play two specific roles as it contributes to understanding and mitigating the effects of NAFTA (such as the burning of more natural gas), and assesses the role that NAFTA plays in creating "common sources" (for example, under NAFTA the three countries are increasingly exchanging wastes).

Credibility is vital to future decisions. Concern was expressed, for example, about the scientific basis for current legislated standards and criteria. The CEC is encouraged to request that all countries review the scientific basis of their standards. A common basis for all standards was recommended.

Another aspect of credibility is that some large sources of emissions have been "grandfathered" (exempted from regulation because of their age). Credibility can be improved by setting standards in the three countries through a trilateral expert committee. The CEC also could establish a moral code of business practice for companies in North America. Finally, it is important that the CEC appear credible and balanced in any recommendation that it makes.

2.1.3 The Public's Recommendations

The following recommendations are based on the assumption that both federal and state/provincial governments will be involved in their implementation.

Make the pollutant monitoring, inventory systems, and measurement databases more comparable throughout North America. A database of innovative technologies, including traditional knowledge, also would be very useful to the three countries, but it is vital that the data collected be regularly synthesized and verified. The CEC should develop a plan to obtain the relevant documents and information and incorporate them into the database. The administrative procedures for public access to these data must be simple. Help from the three countries in tracking down information would be of great benefit to the public.

Recognizing that as governments downsize, many databases are being degraded, the CEC should strongly defend the importance of these data and encourage governments to maintain what are critical for an environmental baseline. The CEC should document the declining capacity, develop a cost-effective strategy for obtaining the data needed, and explore alternative funding mechanisms to support a baseline database. The CEC must alert countries to the fact that there are not sufficient funds to understand some of the key environmental processes; reasonable levels of research and monitoring are not being maintained; and the data constitute an international archive-a significant source of information about the three countries.

The CEC should create a trilateral basis for a North American emissions inventory-in the short term, building knowledge and understanding and, over the longer term, developing or adopting international criteria for data quality.

Make equity a vital component of any action plan to combat the long-range transport of air pollutants.

The CEC should recommend that countries stop "grandfathering" sources immediately to derive the maximum benefit from advances in technology.

Emphasize the important role of public education in environmental decision-making at the national and local levels. The CEC should develop public participation strategies to enhance the public's contribution to decision making.

That the CEC, recognizing the need to encourage technology innovation, should give technology transfer the highest priority. For example, the Commission might consider sponsoring an international contest for the development of new technologies that could help to reduce pollution in North America.

That the CEC actively develop a North American fund or industrial partnership for mitigating problems stemming from continental pollutant pathways. The monies could be used for defining the problem, quantifying the pathways, or reducing the sources of emissions.

That the CEC, realizing that transportation is a continental pollutant pathway, call for immediate equalization of standards in the transportation industry. Specifically, vans, jeeps, trucks, two-cycle engines, and large off-road vehicles should meet the same high standards as passenger vehicles. Marine vessels also should be strictly controlled. Diesel engines should have state-of-the-art control technology applied to them immediately. Harmonizing standards should not lead to the lowest common denominator. Over the long term, a strategy should be developed for phasing out certain modes of transportation.

That the CEC encourage the governments of Canada, Mexico, and the United States to enforce vigorously standards currently in the law. Some participants suggested that there should be minimum standards that any industry must meet as a prerequisite for entering the North American market.

That the CEC recommend that the "ecosystem approach" be adopted for all future environmental decisions. To accomplish this, the CEC should recommend that government departments be reorganized to support this approach. The first job is to assess how the lakes, rivers, and air are doing, not just focus on the impacts of NAFTA. Some participants suggested that the CEC recommend that the three governments adopt the "Cuixmala Model Draft Treaty" as a framework for the protection of the environment and the natural resources of North America.

That the CEC use the 1,000-day countdown to the new millennium to establish specific actions and dates to move toward cleaner air in North America. A novel approach proposed that targets be set in terms of "cylinders per family," moving from a current level of near 8 to 2 by 2005. This will stimulate industrial innovation to meet the new requirements.

That the CEC commission further study of the broader aspects of continental pollutant pathways focusing specifically on microorganisms, PM_{10}, and radionuclides. The CEC should encourage more research on the chronic impact of long-term exposure to low levels of pollutants.

That the CEC recommend that a "source sector approach," rather than a chemical-by-chemical approach, be used from now on. Priority should be placed on the energy sector. The CEC could promote a trilateral carbon (energy) tax as a solution to the global change issue.

That the CEC establish an expert committee to recommend common standards and a technical-socio-political-legal committee to determine how to reach "zero" emissions.

That the CEC recommend against the export of wastes, since dealing with one's own wastes is the most useful lever for encouraging waste minimization.

A key recommendation would be to set standards based on the most sensitive receptor, even if that receptor is to be found far down the continental pollutant pathway from the country setting the standard. This is aimed at protecting an indigenous population that might, for example, be affected by persistent organic pollutants (POPs) or fine particle fractions. The sensitive receptors suggested were women of child-bearing age and people who eat more traditional foods (such as the Inuit). A focus also should be put on intergenerational equity.

2.2 Voluntary Compliance with Environmental Laws in North America

2.2.1 Context

The North American Agreement on Environmental Cooperation includes a number of provisions related to environmental enforcement and compliance within the member countries. These provisions include an obligation assumed by the Parties to enforce effectively their respective environmental laws. Article 5 of the agreement provides a framework for effective enforcement. The third of the twelve courses of action specifically identified within this framework is to seek "assurances of voluntary compliance and compliance agreements."

The inclusion of "compliance agreements" and "voluntary compliance" mechanisms in the agreement presaged the widespread and increasing attention now being devoted in Canada, Mexico, and the United States to a host of innovative "voluntary" approaches designed to increase environmental compliance. These approaches include measures unilaterally instituted by governments or regulated industries as well as mechanisms created through negotiations and discussions between government and industry or within industry.

The CEC has retained experts in each of the three countries to examine experiences to date as the regulated facilities begin to consider and utilize various "voluntary compliance measures" aimed at increasing compliance with external performance obligations. The CEC report is designed expressly to trigger a substantive dialogue about the use of these instruments; it is not designed to endorse or repudiate these innovations. A brief summary of this report was provided to the workshop participants.

Attendance at the JPAC workshops on voluntary compliance appeared weighted more heavily toward representatives of nongovernmental organizations. Several industry and government representatives participated fully, however, and offered substantive comments.

2.2.2 Key Considerations

Skeptical Views of Voluntary Compliance. Workshop participants expressed considerable skepticism about employing new voluntary approaches to increase environmental compliance-and even debated the propriety of using the term voluntary compliance itself. Some speakers disliked the term even while supporting the use of alternative techniques to improve compliance. Others argued that government should not rely on voluntary measures of any kind as drivers of compliance. In fact, some speakers questioned the basic validity of the notion of government agencies encouraging, and regulated industries implementing, measures for voluntary compliance. The very idea of voluntary compliance, one participant noted, was contrary to Mexican practice, which establishes mandatory obligations for environmental compliance.

Indeed, the entire topic of voluntary compliance measures appeared to introduce confusion about the ideas of voluntary versus mandatory behavior. The applicable legislation in Mexico establishes norms and standards for behavior for both government and industry, and these various requirements must be met. Many participants implicitly supported the proposition that measures that encourage voluntary compliance, leading perhaps to a reduced emphasis on the role of traditional enforcement, are likely to be effective only when strong support for compliance with environmental controls already exists. There was considerable interest in finding ways to foster a culture that encourages compliance, based on both enforcement responses and voluntary efforts to ensure compliance. At the same time, some participants expressed doubt that the present culture in the three countries accords sufficient importance and status to compliance with environmental requirements.

Risks and Benefits. There was some sentiment that new compliance assurance mechanisms might create their own set of risks to the environment, and that these might not be entirely foreseeable. This led to suggestions that risk-benefit analysis be conducted for voluntary compliance measures that may gain widespread usage. While not disagreeing with this proposal, others noted that it already was very difficult to measure both levels of compliance and the relationship between compliance and actual environmental conditions. Any effort to factor in measurements of the effectiveness of voluntary compliance measures in increasing compliant behavior would therefore be even more difficult.

Role of Government Enforcement. Concern emerged that the current program to promote "voluntary" compliance could be simply a stalking horse for future efforts either to alter government environmental protection requirements to reflect standards developed by industry through these "voluntary" programs or, at the extreme, to substitute privately developed and voluntarily met standards for all external government regulation. This specter clashed with the belief that the establishment and enforcement of standards by government action had to remain the cornerstone of environmental protection efforts. Several participants argued, however, that governments were insufficiently aggressive in responding directly to violations and overly intrusive in asserting their authority to stay private actions initiated by citizens and groups to enforce environmental laws. Others observed that the Mexican government was still not as effective as it could be in protecting the environment in both its role as regulator and its role as entrepreneur. As a result, some participants worried that formal endorsement of any innovative voluntary compliance program might authorize the government to exercise even greater discretion over compliance and enforcement.

Voluntary Compliance Measures and Resource Considerations. The common argument that acceptance of voluntary compliance measures is necessary to address governmental fiscal and resource constraints was challenged directly. Indeed, some governmental participants expected that the introduction of voluntary compliance measures by the private sector would increase the demand on agency resources, at least in the short term. No speaker accepted staff shortages as a valid basis for minimizing traditional enforcement responses in appropriate situations. Several participants suggested that shortages of resources were a function of insupportable prioritization and allocation decisions, not the magnitude of the resources themselves. Others argued that maintenance of public health and welfare should compel governments to make more resources available for environmental protection including enforcement. The need to deploy resources for maximum efficiency in ensuring compliance

with applicable standards and environmental protection was recognized, however. This perception prompted many speakers to offer support for "various new modalities," "a blend of traditional and alternative methods," "voluntary mechanisms that facilitate compliance," and other tropes describing innovative efforts outside the traditional enforcement model which might improve overall environmental performance.

In all instances, however, support for innovative measures was conditioned on their use only to supplement or go beyond mandatory compliance with government-established standards; voluntary compliance measures must not be allowed to derogate the role and rule of law. Several other cautionary notes were sounded about more formal acceptance of these alternative approaches such as the widespread desire for public participation and transparency in the development, application, and evaluation of any new mechanisms of this sort and the critical need to develop tools to measure the effects of various approaches, including traditional enforcement responses, on levels of compliance and improvement of ambient environmental conditions.

Transparency and Confidentiality. Voluntary compliance measures also seemed particularly capable of prompting concerns that, at least initially, appeared to be mutually exclusive. For example, several participants offered criteria against which voluntary compliance measures could be evaluated: transparency, measurable effectiveness, and transferability to other companies or sectors. At the same time, others pointed out that voluntary compliance measures to a large extent involve the development of new technologies and new systems, and that some breakthroughs might indeed be considered proprietary. Any corollary interest in protecting such information, however, would be in direct conflict with the proposed criteria for evaluating voluntary compliance measures.

Increased Local Role. There also was a broad sense that the implementation of voluntary compliance measures would create new demands and opportunities for local participation. Some suggested that the desired openness and transparency of voluntary compliance measures would draw host communities and industrial facilities closer together, fostering a better working relationship. Others argued that there would soon be a compelling need to increase the capacity of local groups and local governments to conduct the monitoring of both facility compliance and ambient quality indicators in anticipation of the contraction of such activities by state, provincial, or federal agencies. Local academic institutions and grass-roots environmental organizations were identified as capable, after appropriate training, of gathering basic data and submitting it to presumably more expert and objective evaluators for review. It was proposed that funding for such efforts come from the cost savings realized by industry from implementing voluntary compliance measures, or from fines for violations.

Industry Views. The industry representatives who spoke fully embraced the view that governmental regulation and enforcement constitute the bedrock of environmental protection regimes. Alternative measures would provide useful options in helping the private sector to comply with standards more efficiently. These participants also insisted that their desire to comply was driven not only by respect for governmental standards but also by appreciation of important market factors. Beyond the need to satisfy external performance requirements, they explained, the private sector must hit its marks in protecting the environment to ensure trust and good relations with host communities, to compete internationally, and to maximize economic performance. One participant suggested that the development and use of voluntary compliance measures were evidence of growing industry acceptance of "co-responsibility" for ensuring compliance with environmental requirements. Finally, there was support for the view that industry implements those voluntary compliance measures that contribute to bottom-line improvements even without reciprocal government action such as enforcement amnesty or information privileges.

General Considerations. Participants raised a number of related considerations under the general theme of dissimilarities and inequities among the three NAAEC member countries. One oft-repeated observation was that profound differences in environmental understanding and compliance behavior existed not only across the three countries but also within Mexico itself. Canada and the United States were far more knowledgeable than Mexico about voluntary compliance measures, some participants noted. Thus it was critical that Mexico not lag behind in the development and implementation of particular innovative measures relevant to the country. Indeed, some speakers speculated that voluntary compliance measures were a topic of concern and significance only in the United States and that the CEC focus on this topic was misplaced. An emphasis on scientific and academic issues,

particularly technology transfer, was thought to be far more relevant to environmental protection in the North American region than further dialogue on this aspect of compliance.

2.2.3 The Public's Recommentations

Workshop participants identified seven key considerations in addressing the long-range transport of air pollutants: equity, economic inequalities, action, vision, public education, common sources, and credibility.

Equity must be a vital component of Canadian, Mexican, and US efforts to deal with environmental issues. For example, provision of the requisite training will ensure that pollutants are monitored and inventoried equally in the three countries. This leads to the fundamental premise that actions in this area will require comparable quality of data and understanding across North America. On the regulatory level, such North American products as automobiles should have parity in emission standards. However, equity applied to "standard setting" calls for flexibility that would allow national infrastructures and processes to work. Moreover, a common standard must allow the application of stricter standards to solve a local problem. One may observe that standards are set according to threshold pollutant levels that healthy members of society can tolerate-a key point in equity for the elderly and the very young who are much more sensitive to pollutants. At the research level, the consultation called for more trinational collaboration in the generation and use of environmental data. In addition, greater attention to quality assurance and quality control in environmental analytical laboratories is required to ensure that data generated by these laboratories are more comparable. Equity was also defined as equal access to measured data and a joint inventory of emission sources. Equity does not mean trading one pollutant for another.

Finally, the question was posed: "Can the environment and equity issues be addressed in a mutually supportive way?"

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Survival depends on having a *vision.* The concept of adopting a long-term vision of zero anthropogenic emissions elicited opposing reactions. One side found the concept essential to survival of the human race and one that would bring about real change. Opponents of the idea found the concept impractical on a short time-scale-although nearly all participants agreed that the reduction of emissions over time is important. In fairness to both sides, there was evidence in the discussion of a misunderstanding of the "vision" of zero emissions and how fast one would have to reach this as a "goal." But it was very clear that adoption of a vision of zero emissions would require a change in regulatory attitudes and a

fundamentally new way of dealing with total emissions than the current approach which deals with emissions source by source. Zero pollution, it was acknowledged, will require zero public waste (entailing reductions in consumption and more intensive recycling).

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The "ecosystem approach" toward reduced emissions was generally accepted as best because it allows governments to focus on the most important pathways. This requires some precautions, however: carefully avoid the tendency to disconnect ecosystems from human health; do not allow a lack of data on some component of the ecosystem to be an excuse to delay a decision; and recognize that the current organization of the three governments does not favor the ecosystem approach in decision-making. One participant recommended that "environmental standards...be set so as to reduce waste and produce a sustainable environment." It was generally agreed that standards should be used to protect environmental health. The CEC should focus on the true economic costs of standards to bring the whole subject into balance.

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Another aspect of credibility is that some large sources of emissions have been "grandfathered" (exempted from regulation because of their age). Credibility can be improved by setting standards in the three countries through a trilateral expert committee. The CEC also could establish a moral code of business practice for companies in North America. Finally, it is important that the CEC appear credible and balanced in any recommendation that it makes.