Environment Canada | Environnement Canada

Departmental Strategic Plan

August 1982

Canada

ENVIRONMENT CANADA

1982 STRATEGIC PLAN

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FOREWORD

It is with a great deal of pleasure that I issue Environment Canada's 1982 Strategic Plan. This is the deparment's second annual Strategic Plan and benefits from last year's experience and the helpful comments from many individuals both inside and outside government.

This Strategic Plan is the result of extensive discussions amongst senior regional and service managers across the department. I have met personally with each ADM to review formally the directions each Service will be taking over the next decade. In July, a special one and one-half day session of Senior Management Committee carefully reviewed the working paper upon which the 1982 Strategic Plan is based.

A strategic plan is an agenda for action. It addresses the two basic questions of what we as a department want to be producing over the longer term and what principles will guide our actions in obtaining the desired results. The directions, priorities and operating principles presented on the following pages constitute the marching orders to all managers of the department for use in charting the future course of their programs. In particular, the Strategic Plan is to be reflected in the department's operational plans which will be reviewed by Senior Management Committee later in the fiscal year.

There are two major themes in the Strategic Plan which I would like to stress - productivity and sustainable economic development.

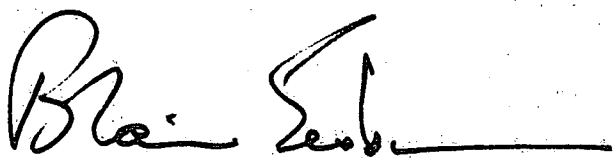
In our day to day activities we must continually improve our efficiency and effectiveness in serving the Canadian people. We must carefully focus our efforts in pursuit of the department's four objectives. We must provide our services in a thoroughly professional manner. The Canadian public expects no less from its public servants and we intend to deliver.

Secondly, it is the firm intention of the department to play a more active and influential role in Canada's economic development. Environment Canada will do this in three basic ways:

- Ensuring that economic activities are environmentally appropriate and sustainable over the long-term;
- Providing environmental information, analysis and advice in support of safe, environmentally sound and economically efficient development; and
- Managing directly in some cases and encouraging in all cases the conservation, enhancement and wise use of Canada's renewable resources and natural and cultural heritage.

The challenge ahead is great. We will succeed to the extent that each one of us pursues the department's four objectives in a sustained and professional manner.

A great deal of thought and effort has gone into the department's Strategic Plan and I would like personally to thank all who participated in the process. Our job now is to implement the plan.



Blair Seaborn
Deputy Minister

STRATEGIC PLAN

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I. MANDATE

Environment Canada's statutory mandate is derived from the Government Organization Act (1979). This Act establishes that the duties, powers and functions of the Minister of the Environment extend to and include all matters over which Parliament has jurisdiction not otherwise federally assigned, and relating to:

- national and historic parks
- preservation and enhancement of the quality of the natural environment, including water, air and soil quality
- renewable resources, including forest resources, migratory birds and other non-domestic flora and fauna
- water
- meteorology
- enforcement of rules and regulations arising from the advice of the International Joint Commission relating to boundary water and questions arising between the United States and Canada that relate to the preservation and enhancement of environmental quality
- other federal matters relating to the natural environment which are assigned to the Minister.

The Act also specifies functions of the Minister in carrying out these responsibilities, including programs to: promote adoption of objectives or standards relating to environmental quality and pollution control; mitigate adverse environmental impacts of new federal projects; and provide Canadians with environmental information.

It gives to the Minister of the Environment broad responsibilities to influence federal departments and agencies, and to work with provincial governments and the public to preserve and enhance environmental quality. The Minister is also authorized to develop guidelines for activities of federal bodies, and enter into agreements with provincial governments or agencies.

More specific powers and duties of the Minister of the Environment are defined by:

- the Canada Water Act
- the Canada Wildlife Act
- the Clean Air Act

- the Environmental Contaminants Act
- the Forestry Development and Research Act
- the Game Export Act
- the Historic Sites and Monuments Act
- the International River Improvements Act
- the Migratory Birds Convention Act
- the National Parks Act
- the Ocean Dumping Control Act
- the Weather Modification Information Act.

The Department of the Environment (DOE) also has responsibility to administer pollution control provisions of the Fisheries Act and to provide specific advice and information under certain sections of federal legislation assigned to other departments such as emissions provisions of the Motor Vehicle Safety Act.

II. OBJECTIVES

Governed by its legal mandate, the purpose of Environment Canada is to:

foster harmony between society and the environment for the economic, social and cultural benefit of present and future generations of Canadians.

To achieve this, the department pursues four objectives.

1. Ensure that human activities are conducted in a way that will achieve and maintain a state of the environment necessary for the health and well-being of man, the health and diversity of species and of ecosystems, and the sustained use of natural resources for social and economic benefit.

2. Conserve and enhance Canada's renewable resources of water, land, forests and wildlife and their related ecosystems and promote their wise use in a sustainable manner for economic and social benefit.

3. Facilitate the adaptation of human activities to the environment.

4. Protect for all time those places which are significant examples of Canada's natural and cultural heritage and encourage public understanding, appreciation and enjoyment of this heritage in ways which leave it unimpaired for future generations.

Environment Canada is in the process of developing umbrella strategies for each of these four objectives. Two of the strategies, natural and cultural conservation, and environmental quality, have been prepared and are presented in the Environment Canada documents Parks Canada Policy (1979) and Environmental Protection Service Strategic Plan (1982). Umbrella strategies for the departmental objectives dealing with renewable resource conservation and adaptation of human activities to the environment are to be completed by the spring of 1983.

The four departmental objectives and the umbrella strategies for their attainment provide the framework and specific guidance for the development and implementation of all Environment Canada's policies, programs and activities.

III. PLANNING ASSUMPTIONS

Environment Canada's Strategic Plan has been formulated within the framework of certain economic and social assumptions. The assumptions considered most relevant to the mandate, objectives and operations of the department are outlined below.

Fiscal Restraint and Productivity

Federal government fiscal and manpower restraint will continue throughout the decade. The purchasing power of the department's budget is likely to decline. Greater central agency efforts to increase their level of control are expected. Environment Canada's efforts to improve its efficiency and effectiveness and its accountability to Parliament and the public must be pursued on an urgent basis.

Public Attitudes and Expectations

The 1980s will be a period of less public consensus on the most appropriate directions for government policy. Scepticism will continue as to governments' ability to resolve issues and provide efficient services. Public pressures will increase for leaner, more responsible and relevant government; for greater public participation in governmental and corporate decision-making; and for greater access to information.

Individuals and groups may search for ways to contribute to personal, community and public welfare that are less dependent on government. The public will demand government action in support of what are perceived to be basic rights. These include protection from threats to human health and the environment, such as those arising from industrial chemicals, acid rain, pesticides and nuclear energy. Environmentally sound development and the protection of heritage resources will continue to be supported by a substantial portion of the Canadian people.

The Economy

Should there be continued negative or slow growth in the economy and high unemployment levels, the work of Environment Canada will be affected in a number of ways:

- There will be pressures to downplay the environmental consequences of economic development activities.

- A slowdown in the development of some energy mega-projects will provide an opportunity to increase the knowledge base necessary for their safe, economically efficient and environmentally appropriate design. There may also be opportunities to pursue smaller scale development projects which may be more environmentally benign. This scenario also applies to the manufacturing sector of the economy.

- Declining, stable or at best modestly increasing real disposable incomes will continue to encourage Canadians to spend more carefully and to make goods last longer through repairs and recycling. This will lead to greater efficiency in the use of goods, including energy, and less drain on the natural resource base.

- Short-term federal government employment creation programs will provide opportunities for the department temporarily to obtain additional resources particularly for forestry, parks and environmental monitoring activities.

The world demand for Canada's non-renewable and renewable resources including agricultural and forest products will grow towards the end of the decade, provided we remain internationally competitive. The development of natural resources has been identified as a major policy thrust of the federal government's economic renewal program. DOE's forestry, water, environmental information and environmental quality activities will be directly involved in support of this policy initiative. Preservation of soil fertility, the sustainability of yields and multiple use will be major renewable resource issues while the focus for non-renewable resources will be on economically efficient and environmentally appropriate development.

The increasing demand/supply imbalance for water, esepcially on the prairies, the magnitude of water development proposals and the various water diversion and irrigation schemes will have enormous economic, social and environmental impacts over large areas extending across international, provincial and territorial boundaries. Water may well become a major national and international political and economic issue in the years ahead.

Tourism will remain a major economic sector having good medium term growth potential. Traditional travel patterns are changing with increased foreign visits and less international vacation travel by Canadians leading to increased recreational use of the domestic natural and cultural environment.

Intergovernmental Relations

The overall climate for federal-provincial relations will not change substantially over the short to medium term. DOE will have to devote significant attention to maintaining its working level relationships which are

currently good in most cases. Over the longer term, there are indications that relations may improve. Direct federal delivery of services and recognition of federal programs will continue to be stressed by the government. Resolution of offshore jurisdictional questions will have a bearing on the protection of coastal zones and the marine environment and on the establishment of marine national parks.

Canada-U.S. relations are of particular importance because of geographic proximity and economic interdependence. Current U.S. policies, which include deregulation and the reduction of programs, have the potential to affect adversely that country's environmental protection capability and its stance on transboundary resource and environmental issues. The overall climate of Canada-US relations will complicate the resolution of contentious issues between the two countries.

Internationally, increasing disparity between rich and poor nations coupled with economic difficulties in the industrial world will lead to policy conflicts related to the protection of the world's environmental and cultural heritage and the exploitation of resources.

IV. DEPARTMENTAL STATUS BY 1990

In light of the departmental planning assumptions and the government's priorities for the 1980s, Environment Canada in the pursuit of its four objectives intends to be:

- more efficient and effective in the provision of carefully selected services to the public and to other government departments and agencies; and
- a more visible, active and influential participant in Canada's economic development.

To achieve its four objectives, DOE provides services in five program areas, namely, natural and cultural heritage; atmospheric services; environmental quality; environmental conservation; and forestry. Demand for services in these program areas is expected to increase over the decade. Given the anticipated government restraint, the department must increase its productivity to the greatest extent possible and must carefully select what services and what level of services it will be able to provide.

In order to concentrate its efforts, DOE will leave to the private sector those services which can be effectively and profitably provided by Canadian business and industry. Not only will this policy help strengthen the private sector, but it will enable Environment Canada to focus on those activities which Canadians want and need and which the private sector is not able to provide effectively. DOE will leave to other federal departments and agencies and to other levels of government those services which can logically be expected from them, given their specific mandates and jurisdictions. By working closely and cooperatively together, we will be able to reduce duplications of effort and intrusions into each other's mandates and jurisdictions.

Priorities

The establishment of priorities is an important component of being selective. The priorities for each of the five departmental program areas are presented starting on page 18. These priorities guide the activities of the individual program areas including the allocation and reallocation of resources from lower to higher priorities. From amongst these priorities, eight issues have been chosen by senior management to receive special attention over the next several years. These issues are not only intrinsically important, but they have high public and political visibility and represent an opportunity for resolution. The list will be revised from time to time as public and political priorities change and in response to DOE's success in resolving particular items. The eight issues are ranked in order of priority.

1. Toxic Substances

Toxic substances released into the environment, especially if persistent, can have a cumulative and serious effect on all living things including humans. DOE's strategy related to this priority issue involves sharing the responsibility amongst governments and actual and potential polluters. Actions will include prevention of the environmental consequences of substances released into the environment, internalizing the cost of preventing or mitigating those consequences, and public consultation on the environmental and socio-economic trade-offs involved in the use of these substances. The department is undertaking measures to identify and respond to significant threats at as early a stage as feasible, and is emphasizing achievement of tangible results on a series of priority chemicals. DOE is expecting to assume responsibility for overall coordination of federal policies and actions to deal with toxic chemicals during 1982.

2. Acid Rain

Acid deposition in Canada is a serious environmental problem caused by emissions of sulphur dioxide and nitrogen oxide both here and in the United States. The department's principal goal in relation to this issue is to reduce acid deposition in central and eastern Canada, by 1990, to no more than 20 kilograms per hectare per year, a level which is required to protect moderately sensitive aquatic systems. This will be achieved through agreements with the provinces on the allocation of emission reductions; negotiating agreements with the U.S. for control actions; and public information and consultation initiatives, all supported by scientific and technical knowledge. Complementary actions will be encouraged in a number of areas of federal responsibility which are assigned to other departments.

3. Forest Sector

The federal government's economic development program for the 1980s identifies forestry as one of five key resource sectors to receive special attention. The government's objective is to ensure the long-term economic development of the forest sector in an environmentally sound manner. Environment Canada will continue to play a leading role in the forest sector by (a) conducting research and development and encouraging technology transfers, (b) encouraging an increased supply of professional manpower from Canada's universities, and (c) promoting better forest management by the provinces and industry through regional development and employment creation programs.

4. Water Management

There is growing recognition that the management of Canada's water resources may be a significant economic and political issue by the year 1990, possibly of the same magnitude as energy in recent years. Particular elements of this issue include growing imbalances between water supply and demand, particularly on the prairies; inadequate water quality in various parts of the country; pressures for water export to the United States; proposals for major diversions in Canada; and conflicts in water use plans amongst provinces and territories. In meeting its responsibilities to provide leadership federally on matters related to inland waters, Environment Canada will be submitting to Cabinet a federal water strategy. The strategy will emphasize measures to support demand management and to augment supplies where appropriate, coordinated planning with provincial/territorial governments, and federal leadership in the resolution of transboundary issues.

5. Environmental Considerations in Energy Development

The development and use of energy have important environmental and resource conservation implications. DOE will continue to give high priority to ensuring that energy related activities are undertaken in environmentally responsible ways. Emphasis will be placed on ensuring that environmental considerations are reflected in all energy related decisions including the development and use of coal resources, frontier oil and gas activities and nuclear energy projects. Conservation of energy will also significantly contribute to both energy self-sufficiency and the maintenance of environmental quality. The department will continue its research into more environmentally benign sources of energy, including forest biomass, and will provide, on a fully cost recoverable basis, environmental design information in support of safe, economically efficient and environmentally sound energy development.

6. The North

The area north of 60° latitude has been selected for priority attention because of the special environmental considerations that must be reflected in northern development and the degree of federal government responsibility for environmental management in that part of Canada. The Minister of the Environment will soon be releasing a policy statement outlining his role and plans for contributing to the management of the northern environment. Specific actions will include the development and implementation of a conservation strategy involving national parks and wildlife areas; historical and cultural resource protection; strong contributions to the environmental assessment of major developments; leadership in the management of the larger northern river systems; and active participation in the government's land use planning initiatives.

7. Maintenance of the Land Resource Base

Meeting increased demands for Canada's renewable resources, including forestry and agricultural products, will require the maintenance of the productivity of the land and related resource base. Particular attention will be given to multiple land use; possible degradation of soil quality and loss of wildlife habitat through higher production; increasing soil erosion and water supply considerations; and land use demands from urbanization. Canada's natural resource base, which provides our basic life support, must be sustained over the long term.

8. Climate Change

Increasing atmospheric pollutants, particularly carbon dioxide (CO_2) pose an acute problem to the world's climate. CO_2 concentration levels are increasing by 3 percent per decade as a result of the burning of fossil fuels, deforestation and other altered land use. This rate of increase may produce significant warming of the earth's surface within the economic lifetime of projects now being planned and built. The warming would alter climates and thereby economics throughout the world.

Canada's industries, forests and agriculture are strongly influenced by the climate. A warmer climate would expand growing and ocean transportation seasons in the north. However, it would also increase aridity in southern Canada posing increased threats of drought, water shortages and reduced river and lake levels. Climate change elsewhere on the globe could alter Canada's international trade position.

The Canadian Climate Program will accelerate monitoring of changes in CO_2 and climate; the ability to predict more precisely the effects of increased CO_2 on climate; the development of the related socio-economic impact scenarios; and the development of adaptive strategies. The provision of monthly and seasonal climate predictions is also a major goal of the Department's Climate Program for the 1980s.

Productivity

As well as being more selective in what we do, we intend to be more productive. We must actively pursue the goal of "doing more with less" if we are to maintain and improve our performance in the top priority areas. Productivity increases will come from better human resource management, more effective planning and management systems and the application of appropriate technology.

1. Human Resource Management

"People are our most precious resource."

All parts of the department are currently preparing comprehensive human resource management plans. These plans reflect the priority which the department attaches to the recruitment, training and development and effective deployment of DOE employees to achieve the right mix of departmental skills to attain our objectives. Better human resource management will also help us achieve proportional representation of francophones at all levels of the organization and to implement affirmative action programs for women, native peoples and the disabled.

2. Systems Enhancement

Improved financial, personnel, materiel, and other administrative and management systems can yield productivity improvements throughout the department. These systems should continually be assessed using cost effectiveness as a key criterion. Particular attention needs to be paid to program evaluation and the implementation of the IMPAC recommendations.

3. Technology

DOE will continually implement technological improvements which increase our productivity. Opportunities exist or will exist to automate many of the department's environmental measurement activities, office automation has already begun, a new vector computer comes on stream next year, and further development of satellite systems for both data acquisition and communications has the potential to improve our productivity in a number of areas including resource management; ice, sea-state and weather reconnaissance; and environmental quality monitoring.

The implementation of automated systems will require major capital investments. Therefore, the department must be prepared to phase out existing systems as alternatives are clearly identified in order to free up resources required for the development and purchase of new ones. Careful financial and human resource planning will be essential to ensure that these resources are available when required, that contingency plans are developed to deal with breakdowns in highly sophisticated systems, and to ensure that the changes take place with a minimum of disruption to the people involved.

Economic Development and the Environment

Economic issues are likely to dominate the public and government agendas throughout the decade. The government's policy framework paper Economic Development for Canada in the 1980s recognizes that "the maintenance of the quality of our water, our air and our soil is essential to our long-term development and to the quality of life to which that development must contribute". It also commits the federal government to "manage those resources for which it is responsible in such a way as to ensure their health and sustainability" and to "encourage others to do so as well".

In accordance with its mandate and objectives, Environment Canada is involved with economic development in three basic ways:

- Ensuring that economic activities are environmentally appropriate and sustainable over the long-term;
- Providing environmental information, analysis and advice in support of safe, environmentally sound and economically efficient development; and
- Managing directly in some cases and encouraging in all cases the conservation, enhancement and wise use of Canada's renewable resources and natural and cultural heritage.

1. Appropriate Development

The environment provides the basic needs of mankind. It supplies food to eat, air to breathe, water to drink and the habitat and shelter for man and all living things. A healthy environment is essential for human survival and well-being and for sustained economic and social development. The state of the environment also governs the degree to which the health and diversity of species and ecosystems can be preserved.

Maintaining and enhancing the quality of the environment is a shared responsibility. Each person, individually and as a member of society, has an impact upon and therefore a responsibility for the environment. Since there are no "safe" levels of pollutants, society must determine the "acceptable levels of risk" by taking into consideration the economic, social and environmental trade-offs.

Since the environment is shared by all, governments have a particular stewardship role to play. All components of the federal government have a responsibility for environmental quality in the fulfillment of their specific mandates. The provincial, territorial and federal governments share responsibility for

environmental quality and resource and heritage conservation. All nations have a responsibility for the quality and the conservation of the global environment.

Environment Canada will be more active in influencing others to make environmentally sound decisions and to use our natural resources in a rational and sustainable manner. Regulatory powers will be used as appropriate and necessary. More emphasis will be placed on the use of market forces to influence decisions which have a bearing on the environment and the renewable resource base. Emphasis will also be placed on advice, advocacy and information transfers as means to influence the actions of others.

To be effective it will be necessary to be selective in our interventions. The eight priority issues, already presented, will be of foremost importance. We will also exercise selectivity in choosing whom we attempt to influence, making sure that our actions are based on a sound understanding of the decision-making processes involved and backed up by adequate scientific knowledge.

There will be a shift of emphasis in DOE activities from remedial to preventive measures. Particular attention will be given to ensuring that the environmental and conservation implications of federal government policies, programs and activities are considered at an early stage in the planning process. The recent reorganization of federal economic development activities should assist this process, particularly in the regions, with the establishment of the Federal Economic Development Coordinators. It is also our intention to strengthen departmental contributions to the Environmental Assessment Review Process and to intervene more often in other regulatory processes such as the National Energy Board hearings.

2. DOE and the Public

Our relationships with the public are closely related to the department's influencing role. The department will continue to strengthen its linkages with the public. We will become more open to the public, more conscious of public views, more responsive to public concerns, and will seek the advice of the Canadian public including business, labour, and public interest groups. It is the department's intention to become more widely recognized as the federal focus for the significant portion of the Canadian public concerned with environmental and conservation issues.

Although all parts of the department will be involved, particular responsibility for strengthening linkages with the public will fall to the regional components of the department. The general public and the particular constituencies which the department

serves will be invited to participate in departmental decisions and will be provided access to departmental information and analysis.

3. Environmental Information

Environment Canada provides information, analysis and advice in support of environmentally sound, safe and efficient economic development. Based upon a strong scientific and technical capability, DOE will continue to provide the kind of advice and information which permits environmental criteria to be built in at the early stages of development projects.

Weather, climate, ice and sea-state information is essential to many economic decisions as is technical advice on the proper design of facilities which must withstand the forces of nature.

Environmental information is also essential for effective resource management. Water quantity and quality data is important for a wide range of economic activities including navigation, irrigation, hydroelectric generation, industrial uses and flood control. DOE's land and land use data bases and associated analysis and research capabilities provide essential inputs into many economic development decisions including the maintenance of soil fertility and multiple land use.

In the field of forestry DOE has well established R&D capabilities. It is our intention to work closely with the provinces and the industry to ensure that this knowledge base leads to better resource management and a more productive forest sector.

4. Environmental Management

Environment Canada directly contributes to Canada's economic development through the management of the national parks system; migratory game birds; and regional economic development activities in the forest sector.

An important generator of economic activity is the operation of Canada's national parks, historic sites and canals. Last year approximately 25 million visits were made to the national parks system. These visitors spent over $400 million which generated approximately 8,000 full time jobs. Much of this economic activity assists small business and occurs in disadvantaged areas of the country.

The department is responsible for the management of most migratory birds and for the protection of their habitats. The management of migratory game birds contributes to recreation and tourism and helps to support the traditional way of life of Canada's native peoples.

The forest sector accounts directly and indirectly for one in ten Canadian jobs and is by far the country's largest net export earner ($11 billion in 1980). There are more than 300 one-industry communities in Canada which derive their livelihood from logging and the related timber processing industry. Forest products account for one-eighth of railway carloadings and new capital and repair expenditures in the forest sector were $4.5 billion in 1981.

Historically the federal government has supported the forest sector through cost sharing agreements with the provinces and more recently through DREE Subsidiary Agreements. The recent decision transferring DREE's responsibility for regional economic development in the forest sector to DOE has had major policy and organizational implications for the department. It is anticipated that this regional development program and specific job creation activities on behalf of CEIC will channel over $100 million annually to the forest sector through the Canadian Forestry Service.

V. OPERATING PRINCIPLES

Over the last decade a number of basic principles and ways of doing business have been established in the department. Some of these approaches have arisen from government wide initiatives while others have evolved from our particular policy and program experiences. The nine operating principles presented below provide specific guidance for developing and implementing departmental policies, programs and activities. They also enable us to respond consistently to emerging issues. As with any rule, there will be exceptions to meet specific circumstances. However, exceptions will be few and far between and the onus will be on those wishing to deviate from a given operating principle to prove their case.

Relationships

1. The department will cooperate with, and seek the cooperation and advice of, provincial and territorial governments in planning and implementing its policies, programs and activities.

2. The department will play a leadership role, both nationally and internationally, in addressing transboundary environmental, resource management and conservation issues.

3. The department will provide the public with comprehensive information and analysis on environmental, conservation and resource management issues and trends; will provide comprehensive information on and will seek the public's advice in the formulation and implementation of departmental policies, programs and activities; and will encourage and support the voluntary sector in activities touching upon Environment Canada's objectives.

Policy and Program Principles

*4. The department will implement the polluter pay principle and will actively encourage others to do so in order to provide incentives for the responsible use of resources. Subsidies which shift real costs to non-beneficiaries are to be avoided and discouraged.

*5. The department will encourage the owners and managers of our natural resources to implement the user pay principle, to capture a just return for the use of those resources and to reinvest in maintaining and enhancing resource productivity.

*6. The department will seek full cost recovery in all cases where it provides direct specialized services to identifiable beneficiaries.

7. The department will encourage and stimulate the growth and diversification of the Canadian private sector by such means as contracting out, technology transfers, joint ventures and privatization, and by not undertaking those activities which the Canadian private sector can or could be encouraged to do.

8. The department will encourage preventive measures in preference to remedial actions in mankind's relationships with the environment.

9. Departmental programs will focus on those issues clearly within federal jurisdiction, recognizing the importance of Environment Canada's advocacy role in matters of general concern.

* The implementation of these principles will be subject to the government's 6% and 5% restraint policies.

VI. PROGRAM STRATEGIES

Environment Canada's programs fall into five inter-related fields: natural and cultural heritage, atmospheric services, environmental quality, environmental conservation, and forestry. In each of these areas DOE has specific program strategies and priorities. The planning and implementation of these program strategies and priorities is guided by the department's overall objectives and operating principles.

Natural and Cultural Heritage

Parks Canada has the primary responsibility for achieving the department's objective concerning the protection and use of Canada's natural and cultural heritage. The policy directions and basic operating principles of Parks Canada are spelt out in its Cabinet approved 1979 policy paper.

Over the decade, it is Parks Canada's intention to place more emphasis on the national historic parks system than on the national parks system. Agreements for Recreation and Conservation will be pursued only where there is an historical or natural element of national significance. Parks Canada will continue to work closely with the voluntary sector in pursuit of its objectives and will maintain and enhance its well developed public consultation processes.

The number of visits to national parks in 1981 was over 21 million, representing an annual growth of approximately 6% between 1976 and 1981. By 1986 over 26 million visits are anticipated. The expected annual increase in visits to national historic parks and sites is 2.5%, with a projected number of visits by 1986 of 5 million. The continued growth in visitor demand means heightened pressures on Parks Canada's existing facilities and services and a demand for new services.

Spending restraint is affecting capital, operational and maintenance projects. In the case of capital expenditures, funds available for recapitalizing the Parks Canada plant (physical assets, not counting land) is only 2.4% of the total value ($2.4 billion in 1981 dollars). As a result, the plant is in serious need of repair and in some areas has deteriorated to the point where its condition is an embarrassment (e.g., Cave and Basin at Banff, Cabot Trail in Cape Breton Highlands National Park). The development of many historic sites has had to be postponed indefinitely.

In order of importance the priorities for Parks Canada are set out below.

1. Maintain levels of service where they are now adequate.

   Parks Canada's role is a mainstay of the Canadian tourism industry. The generation of income and employment, particularly during a period of economic slowdown and in poorer regions, becomes all the more important.

2. Restore service to an acceptable level where deterioration is most serious.

   The national parks system is highly visible and truly national in both scope and significance. Many locations are famous domestically and internationally and are a source of both national pride and unity. It is therefore vital, particularly with the national parks centennial in 1985, that services and facilities be maintained at an acceptable level.

   The implications of this direction for Parks Canada are as follows:

   - reconstruction of the facilities at Lake Louise;
   - highway reconstruction projects in Newfoundland, Nova Scotia and Alberta;
   - restoration work at Halifax Citadel and Quebec Fortifications;
   - reconstruction program for the Rideau, Trent-Severn, and Chambly Canals.

3. Expand in those areas where threats are greatest and greatest resource impact can be achieved.

   The national parks system and Agreements for Recreation and Conservation are incomplete. The present national historic parks and sites system has severe imbalances and gaps. Parks Canada must act now before many of the still unprotected heritage resources are destroyed by major developments.

   This translates into several initiatives, most of which will form part of DOE's strengthened contribution to economic development.

   - Centennial program (to capitalize on the inherent interest in the 100th anniversary of the national parks to promote tourism and public interest in Canada's heritage);
   - undertake negotiations leading to the acquisition of five parks north of 60° (as part of DOE's priority actions related to the north);

- acquisition and development of historic sites in the west: Kitselas Indian site, Steveston Cannery;

- undertake negotiations to establish the heritage river program.

4. Identify gaps and imbalances in the system in a systematic and priorized way, and explore alternative mechanisms to redress the problems.

   This direction applies in particular to national historic parks and sites and will entail projects to:

   - implement the national historic parks system plan including thematic studies, and studies of alternative means of protection;

   - implement the federal heritage buildings policy including the establishment of the Heritage Evaluation Review Office.

Atmospheric Services

The Atmospheric Environment Service (AES) has the primary responsibility for providing atmospheric information, analysis and advice. These services facilitate the adaptation of human activities to the environment for the safety of life and property, economic development and the maintenance and enhancement of environmental quality.

AES (a) reports present and past, and predicts future conditions of the atmosphere, both physical and chemical (primary amongst such predictions are weather forecasts and warnings); (b) reports and predicts the physical conditions of closely related phenomena such as sea-ice and sea-state; (c) monitors and conducts research on acid rain and toxic chemicals; (d) conducts research into and monitors climatic change and variability resulting from physical phenomena, carbon dioxide and other atmospheric pollutants; and (e) encourages the science and practice of meteorology in Canada and promotes Canada's atmospheric interests internationally.

Demand for atmospheric services is expected to increase substantially in support of economic development and environmental quality. To help meet this demand, AES will encourage other organizations such as private firms, universities and other government departments to provide atmospheric services. By 1990 AES will be interacting even more closely with its clients the better to satisfy their needs for environmental information and the regional offices will have increased responsibility and resource flexibility to respond to changing local demands.

The following are AES's priorities in order of importance:

1. Maintain the integrity of the weather forecasting system.

   Improve Day 1 weather warning and forecast services. Emphasis will be placed on their dissemination, accuracy, verification and utility.

2. Improve air quality services.

   Enhance our understanding of the long range transport of airborne pollutants (especially acid rain) and the atmospheric transport and transformation of toxic chemicals giving special attention to mission oriented research and the development of regional monitoring.

3. Develop and implement the Canadian Climate Program.

   Provide climate predictions (monthly and seasonal) and enhance our understanding of climate change and variability resulting from CO_2 concentrations and other atmospheric contaminants including volcanic emissions.

4. Ensure the continued presence of an atmospheric science capability in Canada.

   Encourage research and development in Canadian universities, the private sector, and all levels of government to address national and international priorities and future environmental issues (including support of instrument development in Canada). This includes participation in international programs where there is a clear cost-effective national benefit.

5. Provide services in support of the safe, economically efficient and environmentally sound development of non-renewable and renewable energy.

   Provide, on a fully cost recoverable basis, environmental design information, and improved prediction, advisory, and assessment services through expanded weather, climate, and ice service programs, particularly in the arctic and offshore regions, until such time as private Canadian meteorological firms are able to provide these services. Private meteorology will be encouraged to expand significantly in Canada over the next decade.

Environmental Quality

Based on the department's objective with respect to human activities and their impact on the environment, DOE has established an environmental quality strategy. The lead responsibility for its implementation rests with the Environmental Protection Service (EPS), in cooperation with others in the department and elsewhere. EPS seeks to ensure that all parties, government and private, are aware of and fulfill their responsibilities for protecting and enhancing the quality of the environment and resolving transboundary environmental issues.

EPS is creating a new balance in its activities and a core capacity to ensure an ability to anticipate and act on important issues. In the near term EPS will emphasize development of strategies for dealing with complex and multi media issues and exerting indirect influence on other parties to make environmentally responsible decisions. This may require some reduction of resources from knowledge development to strategy development and will be accomplished largely by better focussing the knowledge efforts to retain those aspects that contribute most to the mission and objectives of EPS.

The following eight issues will receive priority attention over the next few years. (A short description of each of the first four items is presented under departmental priorities starting on page 7.)

1. Toxic Substances

2. Acid Rain

3. Energy

4. The North

5. Marine Environment

   The responsibility for the preservation and enhancement of the quality of marine environment is spread over a number of federal agencies. EPS will develop proposals to focus departmental objectives in this area.

6. Great Lakes Water Quality

   Eutrophication and chemical contamination of the Great Lakes basin ecosystem, specifically from discharges of industrial toxic wastes and atmospheric input, is a national concern because of impacts on human health and on commercial and recreational fishing and tourism. In support of the department's strategy in implementing the Great Lakes Water Quality agreement with the United States, EPS is developing the inventory component of the Great Lakes toxic

substance program, providing information and technical advice to the public and to the International Joint Commission, and maintaining consultative mechanisms at the working level with Ontario, and the U.S. federal and state agencies.

7. St. Lawrence River

EPS considers the restoration of the quality of the St. Lawrence River to be of national significance. To this end, EPS will negotiate arrangements with the Quebec government on federal technical assistance for the treatment of municipal waste waters; and will promote, in collaboration with the provincial government, ECS and other involved parties, the development of an appropriate action plan.

8. Fraser River Estuary

Many estuaries in Canada are under increasing pressures associated with multiple and often conflicting use and require environmentally sound plannig. As the Fraser River estuary is just such a highly stressed area, EPS will establish a management plan and develop strategies for achieving and integrating the federal effort to support federal-provincial management of the Fraser estuary.

Environmental Conservation

The Environmental Conservation Service (ECS) has lead responsibility for departmental policies and programs related to inland waters, wildlife and lands.

The following program strategies are being pursued:

1. Inland Waters

- Resolve interjurisdictional water resource problems, realize interjurisdictional water resource opportunities in accordance with national interests, and publish comprehensive and accurate data regarding Canada's inland waters.

- Encourage multi-purpose water resource management through influencing supply and demand; develop and implement water use plans for those inland waters under federal jurisdiction; and cooperate with the provinces and territories to reduce the impact of unusual conditions such as floods and drought.

- Undertake research to facilitate better water management, basin investigations, water policy development, resolution of acid rain and toxic chemicals issues and the development of new technologies for supplying and utilizing water more efficiently and effectively.

2. Wildlife

- Manage migratory birds and their habitats to ensure their survival and to meet consumer demand for migratory game birds with recovery of full incremental costs and provide for subsistence use by Canada's native peoples.

- In cooperation with the provinces and territories, promote the survival of all endangered species of wildlife in Canada and lead Canadian participation in global wildlife conservation.

- Encourage and provide opportunities for Canadians to enjoy their wildlife heritage.

3. Lands

- Promote the efficient, effective and environmentally sound use and management of land and soil in Canada.

- Ensure that federal policies, programs and activities as they impact upon land are environmentally sound.

- Provide and analyze data on land characteristics, development potential and changing use and conduct research on national and regional land use problems.

The principal thrusts to 1990 include:

- developing and implementing a federal water strategy in which water quantity and water quality issues are dealt with in an integrated manner;

- developing a combined wildlife habitat protection and crop damage protection program allied to a North American waterfowl plan and producing a major revision of the federal wildlife policy;

- greater emphasis on land use and soil fertility and productivity issues;

- much more emphasis on demand-side management including greater use of price mechanisms to allocate natural resources;

- increased research aimed at improving productivity of the natural resource base.

All major operating components of ECS are undergoing policy reviews. Inland water, land and wildlife strategies are at various stages of development and work on the renewable resource conservation policy is now underway. These policies and strategies will lead to some reorientation of the directions and priorities which will guide DOE's activities in the resource conservation field over the next decade. Next year's Strategic Plan will reflect these changes.

Forestry

The Canadian Forestry Service (CFS) has lead responsibility for all matters related to the forest resource within the department and the federal government as a whole. The federal government has identified forestry as one of five key resource sectors to which priority will be given for new economic development initiatives. In September 1981, Cabinet approved a new "Forest Sector Strategy for Canada". The government's objective is to encourage the long-term economic development of the forest sector in an environmentally sound manner.

The following priorities are being pursued by CFS:

1. Human resources

   The strategy, recently approved by Cabinet, addresses the issue of professional and non-professional manpower needs in the forest sector. The approach includes the leveraging of federal funds to increase industrial and provincial support to Canada's six university forestry schools and related faculties.

2. Regional development and employment creation

   As part of the government's emphasis on resource development, Environment Canada has been given the responsibility for regional economic development activities in the forest sector. Environment Canada will utilize the regional development agreements to encourage better forest management by the provinces and industry and to increase substantially the productivity of the forest sector in an environmentally appropriate manner. As well, the department is called upon from time to time to implement CEIC's job creation initiatives, some of which are in the forest sector.

3. Research, development and technology transfer

   A long-term R&D strategy has recently been approved by Cabinet. Highlights of the strategy include:

   - criteria for cooperative arrangements and the apportionment of R&D responsibilities amongst the federal/provincial governments, the universities and the private sector;

- a greater focus on mission-oriented research with particular emphasis on genetics; biological disease and pest control; soil chemistry; tree physiology and ecosystem functioning; intensive forest management practices; and forest protection; and

- technology transfer in close cooperation with the industry, the provinces, and the universities.

4. Contribution to other priority issues

Besides the above strategies related to the department's forestry priority, forestry based scientific and technical capability will be directed to other departmental priority issues. In particular, significant contributions will be made to the issues of acid rain, toxic chemicals, energy, maintenance of the land resource base and climate change.

VII. CONCLUSION

The purpose of Environment Canada is to foster harmony between society and the environment for the economic, social and cultural benefit of present and future generations of Canadians.

Four objectives are pursued by the department: environmental quality; resource conservation, enhancement and wise use; adaptation of human activities to the environment; and the protection and use of Canada's natural and cultural heritage.

The themes of productivity and the department's various roles in sustainable economic development are emphasized in the Strategic Plan. These themes and the department's nine operating principles provide the framework within which we plan and implement the department's program strategies in the five inter-related fields of natural and cultural heritage, atmospheric services, environmental quality, environmental conservation and forestry.