

A GUIDE TO

GREEN GOVERNMENT

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TURNING TALK INTO ACTION

Sustainable development -- integrating economic with environmental goals -- fits in the Liberal tradition of social investment as sound economic policy. Preventive environmental care is the foundation of the Liberal approach to sustainable development.

It is past time for the federal government -- across all departments -- to act on this understanding by adopting economic and environmental agendas that converge.

Creating Opportunity

In Creating Opportunity, the Government of Canada charted a new way of doing business. In it, we recognized that sustainable development should be integrated into the way government defines its business and makes its decisions. This is why we are creating a Commissioner of the Environment and Sustainable Development to hold government accountable for greening its policies, operations and programs, why we set up the independent Canadian Environmental Assessment Agency to better integrate environmental considerations into project planning, and why we put in place guidelines to help government green its day-to-day operations.

The Government of Canada firmly believes that our economic health depends on our environmental health. We firmly believe that the federal government can help shape a better future for all Canadians, a future characterized by sustainable development.

This is why we want to play a leadership role in turning sustainable development thinking into action. This is why we are now taking the next step of establishing a framework in which environmental and economic signals point the same way; a framework which integrates sustainable development into the workings of the federal government -- right across the board.

In this guidebook, we are turning talk into action. We are helping all federal government departments develop their own comprehensive, results-oriented sustainable development strategies. The guidebook will help departments identify their sustainable development objectives and develop the action plans to achieve them. We are providing the necessary guidance for making sustainable development a reality.

All departments are committed to having their sustainable development strategies in place within two years of the establishment of the Commissioner of the Environment and Sustainable Development. Each department will use the lens of its own mandate to ensure that appropriate consideration is given to the economic, social and environmental components of sustainable development. All departments are prepared to develop their strategies in consultation with their clients and stakeholders. All departments are prepared to have their progress evaluated by the Commissioner.

The Government of Canada is committed to getting government right by making government greener. This is our commitment to Canadians.

Prime Minister

Deputy Prime Minister and Minister of the Environment

Leader of the Government in the House of Commons and Solicitor General of Canada

Minister of Foreign Affairs

Minister of Human Resources Development and Minister of Western Economic Diversification

Minister of National Defence and Minister of Veterans Affairs

Minister of International Trade

Minister of National Revenue

Minister of Agriculture and Agri-Food

Minister of Public Works and Government Services and Minister for the Atlantic Canada Opportunities Agency

Minister of Indian Affairs and Northern Development

Minister of Fisheries and Oceans
Minister of Citizenship and Immigration
Minister of Industry
Minister of Health
Minister of Finance and Minister responsible for the Federal Office of Regional Development - Quebec
Minister of Transport
Minister of Canadian Heritage
President of the Treasury Board
President of the Queen's Privy Council for Canada, Minister of Intergovernmental Affairs and Minister responsible for Public Service Renewal
Minister of Natural Resources
Minister of Justice and Attorney General of Canada
Minister of Labour

INTRODUCTION

Over the past decade, sustainable development has become a key goal of public policy, within Canada and internationally. Individuals, businesses, voluntary groups, the scientific community and governments have been exploring how to transform sustainable development from a concept to a practical guide for action.

The Government of Canada believes that sustainable development is not only a desirable but an essential goal of public policy. Achieving sustainable development requires an approach to public policy that is comprehensive, integrated, open and accountable. It should also embody a commitment to continuous improvement.

- *Comprehensive:* Sustainable development is not the mandate of any single government department. All departments must become sustainable development departments, both in terms of their policies that influence the decisions of others, and in how they manage their internal operations.
- *Integrated:* The high quality of life that Canadians enjoy reflects the combination of its economic, environmental and social strengths. These are linked to one another, and government policy cannot focus on one component without regard to its impact on the others.
- *Open:* Sustainable development is a responsibility shared between governments and with Aboriginal people, the private sector, voluntary and community-based organizations, and individual Canadians. Through such partnerships, goals need to be set and respective roles determined for their achievement.
- *Accountable:* Shared responsibility for sustainable development also means that we must each define what we are going to do towards sustainable development -- and we should be prepared to be held accountable for doing our part. We have to measure whether our individual and collective actions are delivering progress towards sustainable development.
- *Continuous Improvement:* Experience has shown that sustainable development is not a fixed state, and will not be achieved through a one-time effort. A step-by-step approach based on continuous, incremental improvement is required to make measurable progress towards sustainable development. Considerable work is already under way at all levels. We need to build on our experience and our growing understanding of the issues.

Amendments to the Auditor General Act establish the Commissioner of the Environment and Sustainable Development within the Office of the Auditor General of Canada. Within two years, Ministers will present their departments' sustainable development strategies to Parliament. These strategies will outline each department's concrete goals and action plans for integrating sustainable development into their policies, programs and operations. They will be prepared in consultation with stakeholders, partners and clients.

Departmental strategies will provide the benchmarks against which progress towards sustainable development will be measured. As outlined in Appendix 1, the Commissioner of the Environment and Sustainable Development will use these to assess how well departments are doing in moving forward on sustainable development, by reviewing their progress in meeting goals and targets and in implementing action plans.

By taking this approach to sustainable development, the Government recognizes that responsibility for sustainable development is shared across government and that each Minister is accountable for making measurable progress on sustainable development within the sphere of his/her mandate. Many federal departments have already made significant efforts to integrate sustainable development into their policy development, planning and decision-making.

The purpose of this paper is to present a framework that serves to guide and assist federal departments in the preparation of their sustainable development strategies. Any framework has to be a guide rather than a prescription. Federal departments differ greatly in their mandates, the resources they have available to

pursue them, and the mechanisms that they use to involve their clients and stakeholders in their decision-making processes. They also differ in their ability to influence Canada's sustainable development prospects.

For these reasons, A Guide to Green Government is set out in broad terms, and meant to be interpreted and adapted by each department. It is not intended to limit the scope of departments sustainable development strategies, but rather to ensure that there is a degree of coherence and consistency among them.

This Guide incorporates the Greening of Government Operations initiative recently undertaken by the federal government, which establishes guidelines for all federal departments to follow in order to integrate environmental considerations into their day-to-day operations.

A Guide to Green Government is presented in three chapters:

I. The Sustainable Development Challenge -- What are we trying to achieve?

This chapter focuses on the meaning of sustainable development, and presents a series of objectives that represent a more concrete expression of the concept. The chapter is intended to provide departments with a common starting point for the identification of concrete goals and targets.

II. Planning and Decision-Making for Sustainable Development -- What are the key instruments?

There are a range of instruments available for pursuing sustainable development. This chapter explores these tools and the issues that could be considered in designing the appropriate mix of tools for the achievement of departments' goals and targets.

III. Preparing a Sustainable Development Strategy -- How should we go about it?

This chapter presents the main elements that departments could consider as the basis for their departmental sustainable development strategies and suggests an approach to preparing them.

I. THE SUSTAINABLE DEVELOPMENT CHALLENGE

In its 1994 report recommending the establishment of the Commissioner of the Environment and Sustainable Development, the House of Commons Standing Committee on Environment and Sustainable Development stressed the importance of a practical definition of sustainable development to guide those applying it. The purpose of this chapter is to move from a review of the underpinnings of sustainable development to a discussion of the government-wide objectives for sustainable development that provide departments with a starting point for the preparation of their strategies.

What Does Sustainable Development Mean?

Sustainable development provides a framework for the integration of environmental policies and development strategies. It recognizes that development is essential to satisfy human needs and improve the quality of human life. But development must be based on the efficient and environmentally responsible use of all of society's scarce resources -- our natural, human, and economic resources.

The World Commission on Environment and Development (the Brundtland Commission) defined sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is this definition of sustainable development that has been integrated into federal legislation and into the amendments to the Auditor General Act that establish the Commissioner of Environment and Sustainable Development. This definition, therefore, provides an important point of reference for departments when preparing their sustainable development strategies.

Humanity has the ability to make development sustainable -- to ensure that it meets the needs of the present without compromising the ability of future generations to meet their needs. The concept of sustainable development does imply limits -- not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be managed and improved to make way for a new era of economic growth . . . [I]n the end, sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs.

Our Common Future
World Commission on Environment and Development, 1987

At the Earth Summit in 1992, nations adopted a set of principles to guide future development. The Rio Declaration on Environment and Development defines the rights of people to development, and their responsibilities to safeguard the common environment. A summary of the Rio Declaration is presented in Appendix 2.

Three Core Concepts

While there are numerous interpretations of sustainable development, common to these are three core concepts that serve as important guides for public policy:

- Sustainable development recognizes that it is not just the traditional measures of economic welfare that matter. Quality of life and well-being are determined by many factors -- income, the state of people's health, their level of education, cultural diversity, vibrant communities, environmental quality and the beauty of nature -- that are all part of the sustainable development equation. Economic growth plays an important role in our quality of life because it provides the wealth to improve our well-being -- to maintain and enhance our education and health, and to protect the environment.

We are deeply convinced that economic development, social development, and environmental protection are interdependent and mutually reinforcing components of sustainable development, which is the framework for our efforts to achieve a higher quality of life for all people. Equitable social development recognizes that empowering the poor to utilize environmental resources sustainably is a necessary foundation for sustainable development. We also recognize that broad-based and sustained economic growth in the context of sustainable development is necessary to sustain social development and social justice.

Declaration and Programme of Action
World Summit for Social Development March 1995

- An integrated approach to planning and decision-making is therefore needed to take into account these many factors. In the past, environmental policy was generally reactive, responding to problems after they had developed. Environmental protection was also viewed by some as a barrier to economic development. Increasingly, Canadians have come to understand that their health and economic prospects are being influenced by the state of the environment. Similarly, a healthy economy provides jobs and incomes, and the wealth needed to develop the science and technology and make the investments that are necessary to ensure a healthy environment. An integrated approach to planning and decision-making will ensure progress on each and all of the dimensions -- social, economic and environmental -- of sustainable development.

- This integrated approach must embody a commitment to equity. Sustainable development carries with it the need not only to create wealth and conserve the environment, but to ensure their fair distribution. A fairer distribution of the costs and benefits of development must be achieved among nations, between generations and between the poor and the affluent. Canadians are particularly concerned about the legacy they leave to future generations in terms of their natural heritage, their economic opportunities, and the determinants of health. In many quarters, the inter-generational aspect of sustainable development is the key to making the concept operational.

Sustainable Development Objectives

Translating the core concepts of sustainable development into more concrete terms is an important starting point in its implementation. The remainder of this chapter presents the types of objectives that figure most prominently in domestic and international efforts.

Sound environmental practices requires that the full range of sustainable development objectives -- including environmental -- are explicitly accounted for throughout the policy development process.

Task Force on Economic Instruments and Disincentives to Sound Environmental Practices, 1994

These objectives are not intended to limit the scope of departments' sustainable development strategies, but rather to serve as a common starting point in their preparation. Each department will use the lens of its own mandate when examining the concept of sustainable development and in developing the objectives and action plans that will underpin their strategies. Through this process, the objectives will be broadened to include a fuller range of economic, environmental and social considerations.

Sustaining Our Natural Resources -- Sustainable Jobs, Communities and Industries

Much of Canada's wealth is based on its rich endowment of natural resources. For the many Canadians dependent on the natural resource sector, sustainable development of the resource base is linked not only to job security but also to a way of life that has supported their communities for decades. Thousands of Canadian communities and one in thirteen Canadians depend on a productive resource base and healthy ecosystems for their employment in the resource industries, tourism or recreation. More than one-quarter of Canada's trade is dependent on the resource sector.

- Ensuring renewable resources development is sustainable. Renewable resources development is sustainable if it remains within the capacity of the resource base to regenerate itself, and if it respects the integrity of ecosystems on which the resource depends. A strong natural resources sector can only be supported within the framework of sound ecological and environmental practices. Renewable resources should be managed on an integrated basis in recognition of the full range of their uses and values, including commodities production, habitat for wildlife, parks and wilderness. The National Forest Strategy, the update of the Agriculture-Environment Strategy, and the Ocean Management Strategy should provide important foundations for the sustainable management of renewable resources.

Each generation is entitled to the interest on the natural capital, but the principal should be handed on unimpaired.

Canadian Commission on Conservation, 1915

- Ensuring efficient use of non-renewable resources. Other resources -- minerals, oil, gas, and coal -- are not renewable. But the role of these resources in a sustainable development strategy can be assured by sound policies which encourage efficient extraction and manufacturing processes and uses as well as by policies and programs which stimulate, where appropriate, recycling or the development of substitutes. Through implementation of its Program Review, for example, Natural Resources Canada will reorient energy policy from a traditional focus on supply to an increased emphasis on efficiency, alternative and renewable energy sources, the environment and sustainable development. The Whitehorse Mining Leadership Council Accord also sets a course towards sustainable development in the mining sector.

Protecting the Health of Canadians and of Ecosystems

Ecosystems receive the wastes produced by individuals' and communities' industrial, agricultural and other activities. Although the environment can absorb some waste, certain chemical residues can remain in ecosystems for years and can be found in the tissues of animals and plants -- some of which we depend on for food. The challenge posed by sustainable development is to alter waste discharge characteristics and reduce quantities of waste to protect the environment and human health. This is best accomplished through application of pollution prevention methodology and recycling of products.

Preservation of unique and representative areas and species maintains the options and the flexibility for the future to respond to unforeseen and changing environmental conditions as well as social and economic demands. Further, where there are dangers to human and ecosystem health, due to both natural and human causes, it is critical that the individuals, communities, and industries affected be warned about the nature of the dangers so that mitigative actions can be taken.

- Virtually eliminating anthropogenic, persistent, bioaccumulative, toxic substances. Due to their long-term health and environmental implications, toxic, anthropogenic (human-made) substances that accumulate in the tissues of plants and animals, and that persist in the environment, should be managed to prevent their release into the environment, or phased-out, if containment is not possible. The Toxic Substances Management Policy, recently released by the federal government, sets out its approach for assessing and managing the risks associated with toxic substances.

- Adopting a pollution prevention approach. Preventing pollution and waste rather than dealing with their consequences after-the-fact, can make a significant contribution to environmental protection. Pollution prevention involves the use of processes, practices, materials or energy that avoid or minimize the creation of pollutants and waste and reduce overall risk to human health or the environment. The draft Pollution Prevention: A Federal Strategy for Action sets priorities for the federal government to internalize pollution prevention within Canadian society.

- Protecting representative areas. Protected spaces are home to many forms of plant and animal life, are the setting for many significant events in Canada's history, and are often a focal point for recreation and tourism activities. Representative areas are also important indicators of overall ecosystem health. Canada's

objective is to protect a representative sample of each of the country's natural regions by the year 2000, to accelerate the protection of marine natural regions, and to accelerate the identification and protection of critical wildlife habitat. The federal government has also established the goal to protect and promote Canada's historical heritage.

- Warning and responding. Canada is vulnerable to natural disasters as severe as those experienced around the world. Landslides, tornadoes, forest fires, severe wind and hailstorms, floods and avalanches are examples of these significant geophysical and meteorological events. Also, despite developments in processes and approaches to prevent and to minimize the hazards associated with some human activities, accidents and unforeseen events do occur. Therefore, for both natural and human-caused disasters, an effective warning and adaptive response capability is critical for reducing their social and economic costs.

Over the past 20 years, worldwide natural disasters have caused \$300 billion in damage, affected the lives of 800 million people and killed an estimated 3 million people. Not only do these catastrophes bring tragic suffering, they also cause serious economic disruptions in developing and developed countries alike.

Human Activity and the Environment Statistics Canada, 1994

Meeting Our International Obligations

Sustainable development is inherently an international concept. Canada's commitment to sustainable development is a complex challenge in an increasingly interdependent and integrated world. Due to the transboundary nature of many sustainable development issues, local issues often have international ramifications. Many of the issues that require cooperation among individuals, industry, and governments within Canada also require cooperation among nations. To resolve sustainable development issues such as climate change, ozone depletion, and resource conservation, Canada must work effectively with other countries towards common goals. Canada has led the international community in establishing such cooperation, and now must follow its own leadership with domestic action.

Bilateral and multilateral agreements are key means by which Canada can cooperate with other countries in resolving international sustainable development problems. Some of the key international agreements involve efforts in:

- Protecting the ozone layer. In 1987, recognizing the human health, environmental and economic implications of ozone depletion, 139 countries signed the Montreal Protocol on Ozone Depleting Substances, which established a timetable for the reduction and elimination of specific ozone depleting substances. Canada has made real progress in phasing-out the production and use of ozone depleting substances, and those efforts must continue. However, the recovery of the ozone layer will take time.

- Reducing greenhouse gas emissions. Canada, along with over 150 nations, signed the Climate Change Convention in June 1992. The Convention requires developed countries to report on actions with the aim of returning their emissions of greenhouse gases to 1990 levels by the end of the decade. Actions are underway federally and in all provinces to limit greenhouse gas emissions. Current projections indicate that with no further action, Canada's emissions in the year 2000 will be 13 percent higher than in 1990, contingent on underlying assumptions about energy prices and economic growth. The National Action Program on Climate Change will help to close the stabilization gap, by developing measures, carrying out economic analysis and working internationally. In order to continue to close the gap, Federal, Provincial and Territorial Environment and Energy Ministers have agreed to proceed with the development of options that will meet Canada's current commitment to stabilize greenhouse gas emissions by the year 2000, and develop sustainable options to achieve further progress in the reduction of emissions by the year 2005.

- Conserving biodiversity. Biodiversity is the variety, richness, and complexity of life that exists within nature. Development is sustainable if it maintains this diversity. Some human activity is resulting in an unprecedented loss of biodiversity. Canada signed the United Nations Convention on Biological Diversity in June 1992 as part of the global response to this loss. The Canadian Biodiversity Strategy will set out the

vision, goals, and strategic directions to guide the actions of governments and citizens in protecting Canada's vital interests and meeting its commitments under the Convention.

A number of other agreements exist or are being negotiated, including those on acid rain, the transboundary transportation of hazardous substances, environment and trade, forestry and the management of high-seas fisheries.

Promoting Equity

Sustainable development is an ethical principle. It incorporates a two-dimensional commitment to equity: between the current generation and those that will follow; and between the poor and the more affluent.

- Ensuring a fair distribution of the costs and benefits between generations. The question of inter-generational equity is one of the key aspects of sustainable development. Sustainable development should not be achieved by simply passing the costs of human activity from one generation to another. Although it is not possible to predict with precision the likely interests of future generations, it is safe to assume that their needs will not be significantly less than our own. Sustainable development requires that future generations be able to benefit from the environment to the same degree as current generations.

- Ensuring a fair distribution of the current costs and benefits of sustainable development. The Brundtland Commission pointed to the inequitable distribution of wealth between the nations of North and South as a major barrier to achieving sustainable development. The aid, trade and debt policies of higher income countries should foster higher standards of living, without increasing pressure on global ecosystems. Domestically, the principal challenge is to extend the benefits of our economic prosperity and high quality of life to a broader segment of the population while maintaining the fundamental integrity of our ecosystems. Poverty, gender equity, unemployment, regional impacts, and the rights and responsibilities of First Nations are some of the key issues for Canada.

Problems such as environmental degradation and growing disparities between rich and poor affect human security around the world and are areas where Canada can make an effective contribution by promoting sustainable development through its program of development cooperation.

Canada in the World Government of Canada, 1995

Improving Our Quality of Life and Well-being

The ultimate aim of development is to improve the quality of human life. People depend on their environment and on economic development to meet their basic needs and to improve their quality of life. Economic growth is an important component of development, and reviving growth through improved productivity is the primary focus of economic policy. Economic growth also provides the wealth to make investments in protecting the environment, supporting education, science and technology, and in maintaining the health and well-being of Canadians.

The challenge is not whether to grow but how to develop.

Canadian Choices for Transitions to Sustainability Projet de Soci,t., 1994

- Fostering improved productivity through environmental efficiency. The Government's Jobs and Growth Agenda focuses on improved productivity -- the efficiency with which people, capital, resources, and ideas are combined -- as the key to providing Canadians with more job opportunities and greater income.

Environmental efficiency is an important dimension of productivity. It means producing more with less -- less resource inputs, less waste. Many environmental improvements, including better energy and water efficiency, waste minimization and pollution prevention are achieved by, or result in, the reduction of inputs, which translates into a reduction of costs.

- Supporting innovation towards sustainable development. The challenge is to design policies and programs that help to make measurable progress on the full range of sustainable development issues while stimulating innovation and competitiveness. This entails an emphasis on developing a predictable policy regime with longer-term time horizons, a focus on results, the use of flexible instruments to achieve them, and full consideration of the environmental and economic implications. It also requires the Government to direct available funds to promising new research and development initiatives, to foster and commercialize new technologies, and to seek out new domestic and global market opportunities. The Government's Jobs and Growth Agenda, Environmental Industries Strategy, and Science and Technology Review provide important policy context for innovation towards sustainable development.
- Broadening measures of progress to include its non-monetary dimensions. Achieving sustainable development involves adopting a broader view of progress that incorporates those elements that are critical to Canadians, their quality of life, their health and their well-being. Without systematic, accessible information, Canadians are unable to assess, predict and respond to their sustainable development challenges.

Conclusion

As is apparent from this chapter, sustainable development is a broad concept, touching the mandates of all federal government departments. It has important environmental, economic and social dimensions that need to be interpreted within the context of each department's mandate, and integrated within it. When preparing their strategies, departments will need to focus their efforts on those areas where they can have the largest impact.

II. PLANNING AND DECISION-MAKING FOR SUSTAINABLE DEVELOPMENT

Governments -- through their policies, legislation and regulations, as well as through their taxes, subsidies and spending -- establish the context in which Canadians make their decisions. By developing converging social, economic and environmental agendas, governments can send clear signals to individuals, businesses, and interest groups on the importance of improved decision-making for sustainable development. Governments are also in a unique position to lead by example, by improving their own environmental performance.

But the role of government is changing. Throughout the federal system, departments are coping with rising demands and shrinking fiscal resources. Through the Program Review, departments are restructuring and refocusing their activities. This represents an important opportunity to ensure that the way government does its business in the future will be right: socially, economically, and environmentally. At the same time, all departments are challenged to accomplish these goals with diminishing financial and human resources.

Once we started asking the fundamental questions we came to three basic problems .

- . . how do we create enough jobs
- . . how do we help the vulnerable members of society
- . . how do we promote a sustainable environment.

The Challenges of Program Review

Hon. Marcel Mass., April 10, 1995

For sustainable development, this means that governments can no longer afford to treat problems after they occur -- an integrated approach to planning and decision-making is needed, based on the best science and analysis available. This approach must embody the visions and expectations of Canadians. All involved need to seek out more opportunities to work with others in partnership. And the full range of available tools needs to be examined to determine a suitable mix for accomplishing the objectives of sustainable development.

An Integrated Approach

The integration of sustainable development into policy, planning, and decision-making is a challenging endeavour which does not lend itself to a uniform, step-by-step recipe. Policies and programs vary greatly in terms of their goals, scope and scale. There are, however, a number of techniques to assist in understanding and integrating social, economic and environmental considerations. Some of the most important are full-cost accounting, environmental assessment and ecosystem management.

- Full-Cost Accounting. In general, the development of sound policy requires an understanding of the relative costs and benefits. In some policy areas, the costs of action versus inaction can be objectively identified and weighed. Sustainable development policy issues, however, dictate that social and environmental values be factored into the policy equation. Given that these values are rarely, if ever, traded in the marketplace, the ability to take them into account in monetary terms is currently very limited. Nonetheless, the commitment to move towards full cost accounting, whose models and concepts are tested and proven, is an important part of moving towards sustainable development.

- Environmental Assessment. Environmental assessment requires systematic consideration of social, economic and environmental factors in policy, program and project development and decision-making. It allows for the formulation and selection of alternatives which support sustainable development and the introduction of measures to ensure that negative social, economic and environmental impacts are avoided or minimized.

The federal government has made a significant commitment to environmental assessment. In 1990, the Government directed all departments to address the environmental implications of their new policies and

program proposals submitted for Cabinet consideration. Under the Canadian Environmental Assessment Act, proclaimed in January 1995, potential environmental effects must be identified early in the project planning process so that alternatives can be considered and mitigative measures introduced.

- Ecosystem Management. Ecosystem management is based on a recognition that living and non-living elements function as a unit in nature. Due to the interactions among the social, economic and environmental systems within an ecosystem, changes to one system can affect the others -- and ultimately impact on human health and well-being. This approach recognizes that the development potential of ecosystems and their capacity to support such development are not always uniform.

In designing policies and programs, and in managing departmental operations, consideration should be given to the fundamental and unique characteristics of individual ecosystems, and the interdependence of social, economic and environmental systems. This approach requires cooperation within and between governments, and with stakeholders involved in ecosystem-based initiatives.

Based on Sound Science and Analysis

In preparing a departmental sustainable development strategy, a sound understanding of the key issues is an essential starting point. Science and analysis can increase understanding of sustainable development issues and, in turn, help governments and Canadians alike make more informed decisions. Along with an understanding of traditional knowledge, they are the foundations of a sustainable development strategy.

Sound science and analysis are necessary for establishing appropriate goals and targets, informing the preparation of action plans for achieving those goals, determining whether these plans are working and, finally, for finding smarter ways of meeting goals and objectives. Effective sustainable development strategies benefit from traditional and indigenous knowledge about the environment. They are also rooted in an understanding of ecosystems and the linkages between economic development, ecosystem health and human well-being.

Good science is particularly important given the inherent variability and uncertainty of many natural phenomena. Research can provide the baseline data and knowledge necessary to better understand issues and make predictions about changes in the future. However, much more work is needed in the economic, natural and social sciences if we are to fully comprehend and manage sustainable development issues. The precautionary principle recognizes that preventative actions should sometimes be taken in the face of scientific uncertainty, especially where there are threats of serious or irreversible social, economic or ecological damage.

Working Together

Canadians want to be consulted before governments make decisions that could affect their lives and well-being -- as new policies are developed, and programs implemented. The importance of consultation and working together to make progress on sustainable development cannot be overstated. Inherent uncertainties associated with sustainable development, value judgements that must be made, and the need for partnerships in implementing policies and programs make it necessary for governments to consult with a broad range of interests and affected stakeholders.

The commitment, resources and creativity of all sectors of society are needed to make sustainable development a practical reality. Well-designed consultations processes that build on existing mechanisms and partnerships are an important part of sustainable development planning. They can highlight valuable information and insights about an area or issue, lead to greater understanding of perspectives, encourage cross-fertilization of ideas and promote partnerships.

Recognizing the value of consultation and cooperation, the Government has directed departments, as part of its commitment to establish the Commissioner of Environment and Sustainable Development, to prepare their sustainable development strategies in an open and transparent manner, through the involvement of

clients, stakeholders and partners. In many cases, individual departments already have processes for involving these voices in their decision-making process.

- With Individual Canadians. Canadians recognize that by integrating environmental, economic and social considerations into their day-to-day decisions, they can help make progress on sustainable development. The federal government can assist Canadians by giving them the tools they need to make informed decisions about their health and well-being, about the environment, and about their economic opportunities. Initiatives such as the Environmental Choice Program, the Green Lane, and the Ozone Watch are helping Canadians to make informed decisions and raising their awareness of sustainability issues.

- With the Private Sector. For the private sector, business and environmental excellence have become intertwined. Resource-based industries continue to depend on sound management practices to secure a sustainable supply of raw materials. Many industries seek improved efficiency and competitiveness through a reduction in waste and in natural resource and energy inputs. In turn, the industries that supply the know-how and the technology required to raise the environmental efficiency of production are benefiting. The Government is committed to building on its work with the private sector to foster competitiveness and innovation. It is also committed to designing policies and programs whose solutions to social and environmental challenges provide a positive investment climate for business.

Stakeholders made a valuable contribution to the integration of environmental and economic policies through their work on the Task Force on Economic Instruments and Disincentives to Sound Environmental Practices, and the Government is committed to their involvement in dealing with longer-term recommendations coming from the Task Force.

- With Other Governments and With Aboriginal People. The domestic and international agendas for sustainable development are increasingly interdependent, making national and global cooperation a necessity.

Domestically, intergovernmental ministerial councils -- including those on internal trade, energy, forestry, wildlife, parks, agriculture and environment -- play a practical role in developing and harmonizing national strategies, processes and standards towards sustainable development. Co-management agreements with other governments and with Aboriginal people provide an opportunity to achieve the objectives of sound resource management, environmental protection and the promotion of community and traditional values. Intergovernmental and multi-stakeholder cooperative initiatives, such as the North American Waterfowl Management Plan, the Whitehorse Mining Initiative Leadership Accord, and the National Forest Strategy, demonstrate how social, economic and environmental objectives can be integrated.

Internationally, Canada works with other governments through agreements, programs and institutions. Bilateral and multilateral negotiations and agreements on such issues as climate change, the high seas fishery and forestry practices are the key means by which Canada cooperates with other countries in resolving international sustainable development issues. Another important instrument for responding to global issues affecting sustainable development, such as poverty, gender equity, basic human needs, good governance and political stability, is Canada's Overseas Development Assistance (ODA) Program. As well, international institutions, such as the G-7, the United Nations Commission on Sustainable Development, the North American Commission on Environmental Cooperation and the Asia-Pacific Economic Cooperation forum, play a growing role in the resolution of global and regional sustainable development issues.

Using A Mix of Policy Tools

Departments make use of a variety of measures to achieve societal objectives. The descriptions below highlight the spectrum of available measures, from those that allow producers and consumers the most flexibility in their choice of actions to those that allow the least. The choice of policy instrument will vary with the nature of the issue.

- Voluntary Approaches. These approaches are actions undertaken voluntarily by individuals, groups, communities or industry to move towards sustainable development. Often, these voluntary initiatives occur

without the active involvement of government -- as in the case of the chemical industry's Responsible Care Program, which includes codes of practice for member companies. In other cases, voluntary action can be structured through instruments such as codes, guidelines and agreements. A number of organizations have recognized the importance of formal codes of conduct to guide their practices.

- Information and Awareness Tools. Through improved awareness and understanding, all Canadians can integrate social, economic and environmental considerations into their decision-making. Some of the tools available to improve decision-making through improved information include labelling programs, such as the Environmental Choice Program, technology development and sharing, sustainability indicators, quality standards and citizenship programs.

- Economic Instruments. Economic instruments rely on market signals to influence behaviour in ways that are consistent with sustainable development. Regulations to create these include tax instruments, such as charges and incentives, and non-tax instruments, such as user charges, tradeable permits and deposit/refund schemes. Since they focus on results rather than methods, economic instruments can stimulate the development of the lowest cost and most flexible methods of achieving environmental goals. By stimulating innovation, they can therefore help achieve both economic and environmental objectives.

Good regulation is essential to a well-functioning society and economy. Rules to safeguard the health and safety of Canadians and to support environmentally sustainable development are vitally in the public interest.

A New Framework for Economic Policy Government of Canada, October 1994

- Direct Government Expenditure. In the past, the federal government often tried to use direct intervention or financial incentives aimed at the private sector or households to encourage them to adopt practices that would contribute to sustainable development. Government expenditure was also used to correct past mistakes. Increasingly, however, direct spending by governments has become less viable as a result of fiscal restraint. To meet its goals, the balance of government actions must shift away from direct government spending towards voluntary efforts, economic instruments and well-designed regulations. Policy, program and project developers should also consider social, economic and environmental implications during the design phase to avoid costly remedial or mitigative measures.

- Command and Control. Command and control tools place legal conditions on specific activities. They include performance standards and quantity, technology, supplier and information controls. Many areas of public policy have traditionally focused on command and control approaches to achieving desired ends. These approaches have been successful in achieving objectives on certain health and safety issues; however, command and control tools can be relatively inflexible. They do not always keep pace with evolving technology, nor do they reflect the variability in the costs of meeting a given objective. Enforcement for non-compliance is crucial to the success of command and control approaches.

Leading by Example: Greening of Government Operations

Departments differ in terms of their policy mandates, but all departments require operational support to deliver them. In operational terms, the federal government is Canada's largest single enterprise. Not including Crown corporations, it has some 224,000 employees, 21.4 million hectares of land under direct management, 59,000 buildings and facilities, more than \$8 billion in annual purchases of goods and services, and 25,000 motor vehicles.

Government operations have a considerable impact on Canada's sustainable development prospects. And the environmental performance of federal government buildings, facilities and operations is subject to increasing scrutiny. Measures which conserve energy and water, reduce solid waste, improve fleet management, and encourage the purchase of environmentally-sensitive products make good economic and environmental sense.

Through its Greening of Government Operations initiative, the Government has established guidelines for all federal departments to follow to integrate environmental considerations into their operations. The main elements of the initiative are:

- a commitment to meet or exceed federal environmental statutes and regulations, and the emulation of best practices from the public and private sector;
- implementation of environmental management systems, starting with the principles of the Canadian Standards Association's Standard Z750-94; and
- inclusion in departmental sustainable development strategies, of plans that incorporate principles for environmental management systems and best practices to improve environmental performance in procurement, construction and operation of buildings, fleet management and land utilization.

Appendix 4 presents the best practices guidelines that have been adopted by the federal government. The aim is for each department to integrate sustainable development into its business, and into how it does its business.

Establishing the Necessary Management Context

Management of horizontal initiatives such as sustainable development -- which cuts across disciplinary, program and sectoral lines -- requires a concerted effort. For successful design and implementation of strategies for integrating social, economic and environmental considerations, there should be: a shared sense of priority within the department; a development of the necessary skills and of an understanding of the relevant issues and tools; a strengthening of management tools; and a recognition that progress will be made incrementally.

- **Broad Based Commitment.** Departments' strategies will indicate how sustainable development will be integrated into their policies, programs and operations. To this end, managers within each department will need to be engaged in the preparation of their sustainable development strategy. A shared sense of priority among these individuals will transform the strategies into measurable progress towards sustainable development. Senior management's commitment and involvement will be critical to providing impetus to this initiative.
- **Skills and Understanding.** More than twenty departments will be preparing sustainable development strategies over the next two years. For some departments, preparation of these strategies will build on significant experience and understanding. For others, efforts will be required to build the skills and understanding necessary for sustainable development planning and decision-making. Cooperation within and among departments during strategy-development will assist in the sharing of information and experience, in ensuring coordination on horizontal issues, and in the development of partnerships towards the achievement of goals.
- **Management Tools.** Environmental assessment, environmental auditing, accountability frameworks and performance contracting are important management tools which can help foster sustainable development. These established processes can also provide a basis for developing and adapting decision-making mechanisms to factor sustainable development into the business of government.
- **Continuous Learning and Improvement.** Managing for sustainable development should be founded on leadership geared towards continuous learning and improvement. Since the amendments to the Auditor General Act require departments to up-date their strategies every three years, opportunities exist for incorporating lessons learned into the evolution of these strategies. The Government has also committed departments to annual reporting of their progress towards sustainable development in the Main Estimates, thereby providing an additional mechanism for verifying the effectiveness and efficiency of goals and action plans.

Conclusion

Through its policies that influence the decisions of others, and through its choices in managing its internal operations, the federal government exerts a considerable influence on Canada's sustainable development prospects. To be successful, departments will need to strengthen and share their scientific and analytical expertise, work with their clients and stakeholders, and develop an innovative mix of policy and management tools. As well, due to methodological weaknesses in some areas -- such as full-cost accounting -- greater weight should be given at this time to integrative processes such as consultation and partnerships.

III. PREPARING A SUSTAINABLE DEVELOPMENT STRATEGY

This chapter presents the main elements that departments could consider as the basis of their departmental sustainable development strategies and suggests an approach for preparing them.

This approach draws upon current literature, such as the Canadian Institute of Chartered Accountants' Reporting on Environmental Performance and the Canadian Standards Association's Guideline for Pollution Prevention (Z754-94), and private sector experience on environmental reporting and environmental management. It has been adapted to the broader concept of sustainable development and for public sector application. As in the private sector application, and consistent with the requirements under the Commissioner, this section emphasizes the need for clear definition of objectives and targets, for consultations, and for monitoring and feedback, leading to continuous improvement.

Departments' sustainable development strategies will provide leadership in the shift to sustainable development in setting goals and objectives, action plans, and benchmarks against which to measure progress. They will be developed in consultation with key stakeholders.

Response to the First Report of the Standing Committee on the Environment and Sustainable Development
(Commissioner of the Environment and Sustainable Development)
October 1994

The figure below presents some of the key elements that are important to consider when preparing sustainable development strategies.

Preparing a Departmental Strategy

- i. Departmental Profile
Identification of what the department does and how it does it
- ii. Issue Scan
Assessment of the department's activities in terms of their impact on sustainable development
- iii. Consultations
The perspective of clients, partners and other stakeholders on departmental priorities for sustainable development and how to achieve them
- iv. Goals, Objectives and Targets
Identification of the department's goals and objectives for sustainable development, including benchmarks it will use for measuring performance
- v. Action Plan
How the department will translate its sustainable development targets into measurable results, including specific policy, program, legislative, regulatory and operational changes
- vi. Measurement, Analysis and Reporting of Performance
What mechanisms the department is establishing to monitor and improve performance

Departmental Profile

The first part of the strategy, the profile, indicates what the department does and how it does it. It establishes the broad context for the strategy, describing the department's mandate and key activities. The

profile could also include a review of the legislative and policy context within which the department operates and how the mandate, priorities, objectives and challenges of the department have evolved and how they are expected to change over the term of the strategy. This section should be relatively brief and focused, while providing sufficient detail to place the plan into context.

By 2000, Canada will be a global leader in the sustainable development and use of energy, forest and mineral resources. Natural Resources Canada, with leading-edge expertise in natural resource science, technology and economics, will be recognized nationally and internationally for its contribution to:

- improving resource sector competitiveness and environmental performance;
- formulating principles, practices and the knowledge base for the sustainable development of natural resources; and
- enhancing the health and safety of Canadians.

Vision Statement Natural Resources Canada, 1995

Issue Scan

The second part of the departmental strategy, the issue scan, involves a self-assessment of the department's policies, programs and operations in terms of their impact on sustainable development. It is at this stage that departments would identify the key sustainable development issues from a departmental standpoint. The issue scan would be aimed at helping the department and the Commissioner understand the implications of the department's activities for sustainable development.

While recognizing that not all the objectives presented in Chapter I will apply to all departments, they provide a starting point for this analysis. The framework for analyzing public policy barriers developed by the Task Force on Economic Instruments and Disincentives to Sound Environmental Practices could also be applied.

The scan information could conclude with the identification of opportunities for, and constraints to, the advancement of sustainable development by the department.

Consultations

The third part of the departmental strategy, consultations, involves obtaining the perspectives of clients, partners and other stakeholders on departmental priorities and how to achieve them. As noted in earlier sections, sustainable development is a shared responsibility requiring the cooperation and involvement of federal, provincial and territorial governments, Aboriginal people and other stakeholders. In recognition of this shared responsibility, the federal government is committed to open and transparent policy and program development on sustainable development. The departmental profile and issue scan described above would provide a good basis for departmental consultations on their sustainable development strategies. These consultations should assist the departments in identifying their sustainable development goals and targets, and the actions required to meet them. Depending on the issues, departments may also wish to consult their stakeholders and partners during the development of their more detailed action plans.

A brief report on the nature of the consultations and how views contributed to the final product would be useful for partners and stakeholders, and contribute to openness and transparency in the preparation of departmental strategies on sustainable development.

Goals, Objectives and Targets

The fourth section indicates the goals, objectives and targets a department will use to manage its sustainable development agenda, and as benchmarks for measuring progress. Goals establish an overall sense of direction and set the parameters for action for the department. Objectives are the overall aims arising under each sustainable development goal. Targets are the detailed performance requirements that

the department sets out to achieve. It is through the definition of targets that departments will clearly indicate their priorities on individual issues. Fulfilment of these targets will provide the focal point for departmental efforts towards sustainable development. The accompanying illustration highlights the interrelationship among goals, objectives, and targets.

Sustainable Development Goals, Objectives and Targets

Goal

Protecting the health of Canadians and of ecosystems and meeting Canada's international obligations by significantly reducing Canada's contribution to stratospheric ozone depletion

Objective

Protecting the ozone layer

Long-term target

To phase out the use, production and importation of the principal ozone depleting substances over the next decade

Short-term targets

Chlorofluorocarbons (CFCs) eliminated by 1996

Hydrochlorofluorocarbons (HCFCs) reduced to 1989 levels by 1996; eliminated by 2020

Carbon Tetrachloride eliminated by 1996

Methyl Chloroform eliminated by 1996

Methyl Bromide reduced to 25% of 1991 levels by 1998

Adapted from Reporting on Environmental Performance

Canadian Institute of Chartered Accountants, 1994

Action Plan

The fifth section indicates how the department will translate its sustainable development targets into measurable results. Therefore, it will be the focal point for the review and assessment by the Commissioner of the Environment and Sustainable Development. As noted in the preceding chapter, there are a range of instruments that departments could use for the achievement of their sustainable development goals and targets. The action plan should set out how a department will achieve them, and thereby contribute to making the shift to sustainable development a reality.

As indicated in the previous chapter, for successful design and implementation of strategies for integrating social, economic and environmental considerations, there should be a shared sense of priority within the department, a development of the necessary skills and of an understanding of the issues and tools, and a recognition that progress will be made one step at a time.

Because sustainable development is a shared responsibility among departments, governments, Aboriginal people and other stakeholders, implementation of action plans will likely require cooperation and partnership. In these instances, departmental sustainable development strategies should describe the cooperative mechanisms and partnerships that will help them achieve their targets, objectives and, eventually, their goals.

Measurement, Analysis and Reporting of Performance

Sustainable development is a continuous improvement process. Ministers are required to update their departmental sustainable development strategies and table them in Parliament every three years. Further, the Government has directed departments to report annually on progress towards sustainable development in Part III of their Main Estimates. The Commissioner of the Environment and Sustainable Development will review implementation of departmental strategies and provide feedback on progress.

This regular reporting and evaluation in the Main Estimates will make ongoing monitoring and self-assessment a necessity. Mechanisms may need to be established for monitoring and integrating adjustments into departmental action plans.

Conclusion

This chapter has outlined the main elements that departments could consider as the basis of their sustainable development strategies. While departments can and will tailor the preparation of their strategies to their specific mandates and ways of doing business, strategies should share certain common characteristics. They should be:

- comprehensive, dealing both with departmental policies and programs that influence the decisions of others, and with how the department manages its internal operations;
- results-oriented, identifying the main sustainable development results the department will achieve, and how it will measure performance towards them; and
- developed in consultation with the department's clients, partners and stakeholders.

CONCLUDING COMMENTS

Sustainable development is a central theme of the federal government's policy agenda. This agenda is based on an integrated approach to economic, social, environmental, and foreign policy. This framework document was drafted to guide and assist departments in the preparation of their sustainable development strategies. It is set out in broad terms and meant to be interpreted and adapted by each department. At the same time, the Guide is designed to ensure a degree of consistency in the way that departments approach the preparation of their sustainable development strategies.

The practical, results orientation of the Guide will help move departments from a broad commitment to, and understanding of, sustainable development towards a self-assessment of their policies, programs and operations, that will in turn help make the shift to sustainable development. In this way, the Guide will act as a catalyst for the development of converging social, economic and environmental agendas across all departments.

As the Brundtland Commission indicated, sustainable development is not a fixed state, but rather a process of change. Preparation and implementation of departmental strategies will require innovation both in policy and management terms, and a commitment to continuous improvement.

APPENDIX 1 THE COMMISSIONER OF THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

Background

In *Creating Opportunity*, the Government made a commitment to establish an Environmental Auditor General. The House of Commons Standing Committee on Environment and Sustainable Development examined how the Government could best implement this commitment. In May 1994 it released its report entitled *The Commissioner of the Environment and Sustainable Development*.

The Government's response to the Committee's report is a package of initiatives centred on three prongs:

- Amendments to the Auditor General Act. The amendments provide for the creation of a Commissioner of the Environment and Sustainable Development in the Office of the Auditor General, and require Ministers to table sustainable development strategies for their departments in Parliament.
- Openness, transparency and leadership on sustainable development. The response commits departments to prepare the sustainable development strategies in consultation with external stakeholders.
- Integration of the environment into decision-making. The Government commits to integrate the environment in the development of new initiatives, and to continue its efforts to identify barriers and disincentives to sound environmental practices in its existing policies, programs, laws and regulations.

Amendments to the Auditor General Act

The amendments to the Auditor General Act formally incorporate the environment and sustainable development into the Act and enhance the auditing of the implementation of the government's sustainable development policies and practices. Specifically, the amendments:

- establish a Commissioner of the Environment and Sustainable Development within the Office of the Auditor General;
- include a definition of sustainable development;
- explicitly include environmental effects among the considerations the Auditor General uses to determine the observations to be brought to the attention of Parliament;
- require Ministers to table in Parliament, within two years of the coming into force of the amendments, sustainable development strategies that include the department's objectives and plans of action to further sustainable development;
- require the sustainable development strategies to be updated at least every three years on a reasonable efforts basis and tabled in Parliament;
- authorize the Auditor General to forward petitions from the public on environmental matters to the responsible Ministers for reply;
- require the responsible Ministers to respond to the petitions within a specified time frame.

Role of the Commissioner of the Environment and Sustainable Development

- The Commissioner will report directly to the Auditor General.
- The Commissioner will assist the Auditor General in carrying out his duties relating to the environment and sustainable development.
- The Commissioner will report annually to the House of Commons on anything related to the environmental aspects of sustainable development that the Commissioner considers should be brought to their attention. In particular, the Commissioner will monitor and report on the extent to which departments are implementing their sustainable development action plans and meeting their sustainable development goals.

- Further, the Commissioner will report annually to the House of Commons on the number, subject and status of petitions received by Ministers.

APPENDIX 2 RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT (Plain Language Version)

Recognizing the integral and interdependent nature of the Earth, our home, the nations meeting at the Earth Summit in Rio de Janeiro adopted a set of principles to guide future development. These principles define the rights of people to development, and their responsibilities to safeguard the common environment. They build on ideas from the Stockholm Declaration at the 1972 United Nations Conference on the Human Environment.

The Rio Declaration states that the only way to have long-term economic progress is to link it with environmental protection. This will only happen if Nations establish a new and equitable global partnership involving governments, their people and key sectors of societies. They must build international agreements that protect the integrity of the global environment and the development system.

The Rio principles include the following ideas:

- People are entitled to a healthy and productive life in harmony with nature.
- Development today must not undermine the development and environment needs of present and future generations.
- Nations have the sovereign right to exploit their own resources, but without causing environmental damage beyond their borders.
- Nations shall develop international laws to provide compensation for damage that activities under their control cause to areas beyond their borders.
- Nations shall use the precautionary approach to protect the environment. Where there are threats of serious or irreversible damage, scientific uncertainty shall not be used to postpone cost-effective measures to prevent environmental degradation.
- In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process, and cannot be considered in isolation from it.
- Eradicating poverty and reducing disparities in living standards in different parts of the world are essential to achieve sustainable development and meet the needs of the majority of people.
- Nations shall cooperate to conserve, protect and restore the health and integrity of the Earth's ecosystem. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.
- Nations should reduce and eliminate unsustainable patterns of production and consumption, and promote appropriate demographic policies.
- Environmental issues are best handled with the participation of all concerned citizens. Nations shall facilitate and encourage public awareness and participation by making environmental information widely available.
- Nations shall enact effective environmental laws, and develop national law regarding liability for the victims of pollution and other environmental damage. Where they have authority, nations shall assess the environmental impact of proposed activities that are likely to have a significant adverse impact.
- Nations should cooperate to promote an open international economic system that will lead to economic growth and sustainable development in all countries. Environmental policies should not be used as an unjustifiable means of restricting international trade.
- The polluter should, in principle, bear the cost of pollution.
- Nations shall warn one another of natural disasters or activities that may have harmful transboundary impacts.
- Sustainable development requires better scientific understanding of the problems. Nations should share knowledge and innovative technologies to achieve the goal of sustainability.

- The full participation of women is essential to achieve sustainable development. The creativity, ideals and courage of youth and the knowledge of indigenous people are needed too. Nations should recognize and support the identity, culture and interests of indigenous people.
- Warfare is inherently destructive of sustainable development, and Nations shall respect international laws protecting the environment in times of armed conflict, and shall cooperate in their further establishment.
- Peace, development and environmental protection are interdependent and indivisible.

APPENDIX 3

BUSINESS PRINCIPLES FOR A SUSTAINABLE AND COMPETITIVE FUTURE

(Business Council on National Issues)

1. Adopt sustainable development as a key operating principle of the company. Under senior management direction, and utilizing appropriate employee training and motivation, develop corporate systems and procedures to ensure the company operates according to the principles of sustainable development.
2. Develop corporate goals and objectives for sustainable development, and a means to measure progress against these objectives. Communicate periodically to the board, shareholders, employees, government authorities, and the public with respect to these goals and progress made.
3. Promote public policies and regulatory frameworks within which market forces can be fully responsive to the choices of individuals and organizations in working towards sustainable development.
4. Meet or exceed all applicable environmental laws, regulations and standards. Set the company's own standards when government regulations do not exist.
5. Before launching any new project, product or service, undertake an evaluation of its sustainability, and integrate into the planning process measures to prevent or minimize any potential environmental impact.
6. Adopt the principle of life-cycle management by applying sustainable criteria at every stage of the enterprise's activity from R&D, design for recycling and re-use, and the utilization of raw materials and hazardous substances, to production processes, transportation and distribution, sales and customer use, and ultimate disposal.
7. Take a proactive role in promoting the goal of sustainable development, both nationally and internationally, and work co-operatively with government, labour and public interest groups to develop policies to promote sustainable forms of development. Encourage the adoption of sustainable practices by suppliers, customers, and others in the business community.
8. Consider means to facilitate the transfer of environmentally beneficial technologies, throughout the business sector and internationally, by the deployment of managerial, technical and financial resources.

APPENDIX 4

GREENING OF GOVERNMENT OPERATIONS: BEST PRACTICES

These "best practices" are intended as guidelines, and should be applied with existing policies, regulatory considerations, cost-effectiveness and technological feasibility considerations borne fully in mind. Over time, these best practices should continue to evolve and move progressively towards pollution prevention.

Procurement:

- evaluate potential purchases as outlined in Treasury Board's Material Management Environmental Guidelines;
- consistent with Canada's international trade obligations, purchase products and services that meet environmental specifications wherever these are available, and consider life-cycle costs. In some cases, this could involve a small price differential;
- provide green procurement training to officers with purchasing authority to improve decision-making, such as Implementing Environmental Purchasing Policies available from Environment Canada;
- adopt just-in-time delivery of all standard items on a competitive basis; and
- phase out all warehousing space for standard items as the just-in-time system comes into place.

Waste Management:

- realize Canadian Council of Ministers of the Environment (CCME) target of 50% reduction by the year 2000, using 1988 as the base year;
- identify waste reduction opportunities, taking advantage of existing auditing tools and procedures;
- develop and implement a waste reduction action plan, including an awareness program for employees;
- separate waste streams at source to facilitate reuse, recycling and proper disposal;
- compost organic waste where feasible;
- centrally collect environmentally-harmful wastes, and store and dispose of them safely; and
- implement a coordinated program to reduce the use of paper by switching to electronically-based communication.

Water Usage:

- evaluate whether the facility qualifies for savings finance, and, where appropriate, take advantage of the benefits afforded by such savings;
- identify water savings opportunities, taking advantage of existing audit tools and procedures;
- develop and implement a water conservation plan;
- optimize water efficiency, review bills, monitor flow meters and implement preventive maintenance programs;
- specify water-saving equipment and devices for future purchases, such as water-efficient fixtures including toilets, faucets, showerheads and appliances;
- retrofit toilets, urinals, showers, faucets, and drinking fountains to reduce water use; and
- use greywater for landscaping and irrigation purposes where feasible.

Energy Use in Federal Buildings:

- review energy use in owned and leased facilities;
- develop and implement energy management plans, including preventative maintenance (guidelines are available under the Natural Resources Canada Federal Buildings Initiative);
- assess the energy efficiency knowledge requirements of building operators and managers and provide the required training;
- implement all economically attractive energy retrofits;
- take advantage of the Federal Buildings Initiative which provides products and services in support of the above activities; and
- facilitate building occupant energy conservation, e.g., with bike racks, car-pool parking privileges and car-pooling information.

Motor Vehicle Fleets:

- manage fleet vehicles in accordance with economic and environmental objectives of the Treasury Board Motor Vehicle Policy being developed in partnership with Natural Resources Canada and Environment Canada;

- maximize fuel efficiency and the use of alternative fuels to conserve energy and reduce emissions;
- wherever possible, use low-sulphur diesel and ethanol-gasoline blends, meeting environmental specifications;
- purchase original equipment manufactured alternative fuel vehicles or retrofit vehicles where life cycle costs are comparable to gasoline or diesel-fuelled vehicles;
- purchase vehicles of appropriate engine size to meet operational requirements;
- reduce the number of vehicles for departmental use;
- perform emission testing and regular maintenance on vehicles to ensure maximum operating efficiency;
- recycle all used vehicle liquids (i.e., oil, anti-freeze, CFCs); and
- conduct driver education for enhanced energy savings and safety.

Land Use Management:

- the identification, classification and assessment of sites of concern on departmental lands should be undertaken using the CCME National Classification System or a similar tool;
- the management of the risk to human health and the environment should include risk assessment and techniques for containment, mitigation, and remediation;
- site remediation objectives should be based on the existing CCME Environmental Quality Criteria as appropriate or the CCME Risk Assessment Framework for Ecological and Human Health Effects, for risk-based remediation plans; and
- leasehold agreements between federal custodian and private interests should contain specific provisions designed to ensure lessees make appropriate arrangements to prevent contamination. In the acquisition, use and disposal of real property, the Treasury Board Policy on Real Property Management should be adhered to.

Human Resource Management:

- consistent with Treasury Board's personnel policy, adopt human resource management practices that foster innovative working arrangements, such as job sharing, and working from home, which support environmental objectives; and
- infuse environmental awareness into all training programs, particularly orientation training.

APPENDIX 5 SUSTAINABLE DEVELOPMENT VOCABULARY

Agenda 21: The blueprint for making development socially, economically, and environmentally sustainable that was agreed upon at the Earth Summit in Rio de Janeiro in 1992.

Anthropogenic: A substance whose presence in the environment is due to discharge or release through human activity.

Bioaccumulation: A process by which chemical substances are ingested and retained by organisms, either from the environment directly or through consumption of food containing the substances.

Biological Diversity (Biodiversity): The variety of different species, the genetic variability of each species, and the variety of different ecosystems that they form. (Wildlife Ministers Council of Canada)

Climate Change: A warming of the Earth's atmosphere caused by increases in the atmosphere of certain gases that absorb the radiation emitted by the Earth, thereby retarding the loss of energy from the system to space.

Continuous Improvement: To continue to improve policies, programs, and performance, taking into account technical developments, scientific understanding, client needs, and community expectations.

Ecosystem Approach: The design of policies, programs, and operations in consideration of the unique and fundamental characteristics of individual ecosystems and in recognition of the interdependence of social, economic and environmental systems.

Environmental Assessment: The systematic consideration of social, economic, and environmental factors during policy, program, and project development and decision making.

Environmental Management Systems: Systems that provide a framework for monitoring and reporting on an organization's environmental performance.

Equity: Equity refers to the fair distribution of the costs and benefits of human activity between people. Its two components are inter-generational equity and current equity between people or groups of people.

Full-Cost Accounting: An accounting method which determines total value or final price by internalizing non-market values such as environmental and social costs and benefits.

Greening of Government Operations: An initiative aimed at establishing guidelines for all federal departments on how to integrate environmental considerations into the management of their operations.

Integrated Resource Management: The management of two or more resources in the same area; commonly includes water, soil, timber, grazing land, fish, wildlife and recreation.

Life Support Systems: Human beings are dependent on the natural processes which maintain the workings of the Biosphere. These include the maintenance of genetic diversity, the stabilization of ecosystems, the maintenance of the composition of the atmosphere, and the regulation of climate.

Main Estimates: This annual fiscal plan sets out the spending of the Government of Canada. Part III of the Main Estimates lays out the detailed plans of a department.

Non-Renewable Resources: Those natural resources that are in fixed supply, but whose lifespan can be extended through more efficient or reduced use, re-use, or recycling (e.g. minerals, oil, coal).

Ozone Depletion: Stratospheric ozone (O₃) is formed from the conversion of oxygen molecules by solar radiation. It absorbs much ultraviolet (UV) radiation and prevents it from reaching the Earth. Certain ozone depleting substances are reducing the amount of ozone that absorbs this UV radiation.

Polluter Pays: The polluter should, in principle, bear the cost of pollution. (Rio Declaration on Environment and Development)

Pollution Prevention: The use of processes, practices, materials, products, or energy that avoid or minimize the creation of pollutants or wastes and reduce overall risk to human health or the environment. (Pollution Prevention: A Federal Strategy for Action)

Precautionary Principle: When there are threats of serious or irreversible damage, scientific uncertainty shall not be used to postpone cost effective measures to prevent environmental degradation. (Rio Declaration on Environment and Development)

Renewable Resources: Those natural resources that are naturally replenished, but whose continued supply depends, in many cases, on proper management (e.g. tree biomass, fresh water, fish).

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (Our Common Future, 1987)

Sustainable Development Strategy: The strategy that each Minister responsible for a department will be required to submit to Parliament. It will include the department's concrete goals and plans of action to integrate sustainable development into its policies, programs, and operations.

Toxics Management: Focuses on the control of those substances most harmful to human and ecosystem health, with actions to: virtually eliminate from the environment substances that are predominantly anthropogenic, persistent, bioaccumulative and toxic; and implement full life-cycle management of all other substances of concern. (Toxic Substances Management Policy)

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