



National Round Table on the Environment and the Economy
Table ronde nationale sur l'environnement et l'économie

SUSTAINABLE DEVELOPMENT: A Manager's Handbook

David W Conklin
Richard C Hodgson
Eileen D Watson



Foreword by
Allan R Taylor



Sponsored by Royal Bank of Canada

SUSTAINABLE DEVELOPMENT:

A MANAGER'S HANDBOOK

David W Conklin
Richard C Hodgson
Eileen D Watson



National Round Table on the Environment and the Economy
Table ronde nationale sur l'environnement et l'économie

© National Round Table on the Environment and the Economy, 1991

All rights reserved. No part of this work covered by the copyright herein may be reproduced or used in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping or information retrieval systems - without the prior written permission of the publisher and, where relevant, the copyright holders listed on page 130.

Canadian Catalogue Information in Publication Data

Conklin, David W.

Sustainable Development

(National Round Table series on Sustainable Development)

ISBN 1-895643-00-7

1. Industrial management - Environmental aspects.
2. Economic development - Environmental aspects.
3. Environmental protection. I. Hodgson, Richard C.
II. Watson, Eileen D. III. National Round Table on the Environment and the Economy (Canada).
- IV. Title. V. Series.

HD75.6.C65 1991 658.4'08 C91-095737-1

Book Design, Typesetting and Graphic Consultants for Series:

sla Graphicus Specialists in environmental graphic design

Sims Latham Group, 680 Queens Quay West, Suite 702,

Toronto, Ontario, M5V 2Y9 Tel: (416) 586-0065

This book has been set in New Century Schoolbook, Helvetica and printed on Environmental Choice paper containing over 50% recycled content, including 5% post-consumer fibre, using vegetable inks. The cover board also has recycled content and is finished with a water based, wax free varnish. Printed and bound in Canada by The Alger Press.

**National Round Table on the Environment and the Economy
Table ronde nationale sur l'environnement et l'économie**

1 Nicholas Street, Suite 520, Ottawa, Ontario, K1N 7B7

Foreword

As Chairman and Chief Executive officer of Canada's largest chartered bank, I have had the opportunity to witness Canadian companies grow and develop into successful businesses. Achieving this success is never easy. Among other things, it requires that managers be adaptable to changing business conditions and values.

Increasingly, managers are recognizing that balancing growth and development with the need to protect the environment is an integral part of achieving success.

With the environment at the top of the public agenda and the threat of tougher legislation and enforcement ever-present, companies are becoming more accountable for actions that deplete our natural resources and pollute our land and water.

Sustainable Development has, therefore, emerged as a business strategy to achieve economic and business growth, while at the same time preserving our environment for the benefit of future generations.

The moral and ethical logic of this strategy is indisputable. Maximizing short-term growth at the expense of proper environmental management is not only a betrayal of our longer-term interests, but also the interests of our children and our children's children.

What is less understood is that Sustainable Development makes good business sense. Whether preparing for the future by adopting a longer-term

perspective, gaining market share through new “environmentally friendly” products, or cutting production and distribution costs by reducing, re-using and recycling raw materials and supplies, Sustainable Development can lead to increased profitability and competitiveness.

At Royal Bank, we believe in managing our operations in a way that recognizes the interconnection between a healthy environment and sound economic growth. Moreover, we are committed to helping build awareness and fostering dialogue within the private sector for the need to pursue Sustainable Development.

It is, therefore, with great pleasure that the Royal Bank has supported the National Round Table on the Environment and the Economy in the production of this publication.

Through such efforts, we believe a higher level of understanding can be achieved, and a spirit of co-operation developed, that will ultimately lead to a healthier environment and an improved quality of life for us and for future generations.

Allan R. Taylor
Chairman & Chief Executive Officer
Royal Bank of Canada

Preface

A central role for the National Round Table on the Environment and the Economy in promoting Sustainable Development is to ensure a dialogue among environmentalists, consumers, government and business that results in positive outcomes.

Business in Canada, as in other parts of the world, is facing increasing pressure from the public and from governments to conduct itself in an environmentally responsible manner.

This book, the first in a series on Sustainable Development issues, reminds business managers of those pressures and the new legislative framework in which they must now operate. Our main aim, however, is to provide managers with the information that will encourage and enable them to improve their environmental and economic performance.

Trade and Professional Associations and governments can also be an important source of support for companies that want to improve their environmental performance. Environmental responsibility can be seen as a challenge but also as a great opportunity for growth and economic success, as many companies have already discovered.

It goes without saying that business is an essential element in the movement for Sustainable Development, both in the growth of new environmental enterprises and in the increased environmental sensitivity of established companies.

In compiling this handbook, the National Round Table has been encouraged by the co-operation of

many corporations across the country. Some of their experiences are included here to illustrate the enormous potential for successful Sustainable Development.

We hope this book will encourage managers to join the Sustainable Development movement and reap the economic rewards that can result.

George Connell

Chair

The National Round Table

on the Environment and the Economy

Contents

<i>Foreword</i>	iii
<i>Preface</i>	v
Introduction	2

Part A Why Should You Be Concerned About Sustainable Development?

1	The Rise of Public Concern	5
2	You Can Make a Difference	15
3	New Problems You Will Face	25
4	The Law Is Changing Rapidly	33

Part B How Well Are You Doing?

5	Grade Your Organization: A "Do-it-Yourself" Environmental Audit	45
---	--	----

Part C How Can You Do Better?

6	Developing a Management Strategy	65
7	Involving Your Employees	73
8	Where to Get Help	83
9	Success Stories	93
10	A Final Word	131

Introduction

The purpose of this Handbook is to assist organizations in improving their Sustainable Development performance. The Handbook is divided into three parts:

***Part A Why should you be concerned
about Sustainable Development?***

Part B How well are you doing?

Part C How can you do better?

If you have already become an advocate of Sustainable Development, you may wish to skip Part A and go directly to Part B.

Part B suggests how you may grade your organization's performance in regard to Sustainable Development. Part B is a "do-it-yourself" environmental audit. If you give your organization a grade of 100, then you should accept our congratulations, and give this Handbook to a friend in some other organization.

Part C provides suggestions as to how your organization may improve its performance and contains a series of success stories and reports that may also assist you.

We expect that this Handbook will be revised as new experiences accumulate. We hope that you and your organization will be a part of this revision process. Please send us a disk with your answers to the exercises in Parts B and C, and we will try to incorporate these into later editions. We would especially like to receive your grades and comments in your "do-it-yourself" environmental audit.

PART A

***Why Should You Be Concerned
About
Sustainable Development?***

1 The Rise of Public Concern

The decade of the 1980s will be characterized as the period in Canada's history during which environmental awareness and concern began to dominate public attitudes and compete with economic issues as the foremost issue of the day.

Perceptions of a deteriorating local/national/global environment, major environmental disasters and an increasing world focus on acid rain, climate change and other major issues contributed to this attitudinal change.

***National Round Table on the Environment and the Economy,
A Report to Canadians, June, 1989-90, p.10***

The information in this Handbook and the challenges posed by environmental issues directly concern you, as a resident member of our endangered planet, a responsible citizen of Canada and your home community, and a managerial leader in your organization. Environmental issues affect us all, and Sustainable Development practices and programs offer hope for the future of our society and our world.

Sustainable Development: An International Concern

As part of the global network of nations, Canada shared in the preparation of the global agenda for change proposed in 1987 by the United Nations

World Commission on Environment and Development. The commission produced *Our Common Future*, a ground-breaking document which detailed long-term environmental strategies for achieving Sustainable Development.

What Is Our Government Doing?

In the early 1980s, Canada was a relative newcomer to Sustainable Development strategies and practices. However, in response to a growing nationwide concern, and inspired by the example of other nations (West European countries were considered most advanced), the Government of Canada began to take a direct role vis-à-vis environment-related legal requirements and corporate initiatives.

In 1986, Canada's federal and provincial governments established a National Task Force on Environment and Economy to facilitate public discussion. This Task Force recommended the establishment of permanent Round Tables on the Environment and the Economy in each jurisdiction in Canada, as fora for continuing dialogue on how to achieve Sustainable Development practices.

In October 1988, the Prime Minister of Canada announced the creation of the National Round Table on the Environment and the Economy. The founding members of the new institution were appointed in early 1989. Each provincial government has recently also established Round Tables. They share common objectives, which have been enunciated by the National Round Table as follows:

1. Stewardship

We must preserve the capacity of the biosphere to evolve by managing our social and economic activities for the benefit of present and future generations.

2. Shared Responsibility

Everyone shares the responsibility for a sustainable society. All sectors must work towards this common purpose, with each being accountable for its decisions and actions, in a spirit of partnership and open cooperation.

3. Prevention and Resilience

We must try to anticipate and prevent future problems by avoiding the negative environmental, economic, social and cultural impacts of policy, programs, decisions and development activities. Recognizing that there will always be environmental and other events which we cannot anticipate, we should also strive to increase social, economic and environmental resilience in the face of change.

4. Conservation

We must maintain and enhance essential ecological processes, biological diversity and life support systems of our environment and natural resources.

5. Energy and Resource Management

Overall, we must reduce the energy and resource content of growth, harvest renewable resources on a sustainable basis and make wise and efficient use of our non-renewable resources.

6. Waste Management

We must first endeavour to reduce the production of waste then reuse, recycle and recover waste by-products of our industrial and domestic activities.

7. Rehabilitation and Reclamation

Our future policies, programs and development must endeavour to rehabilitate and reclaim damaged environments.

8. Scientific and Technological Innovation

We must support education and research and development of technologies, goods and services essential to maintaining environmental quality, social and cultural values and economic growth.

9. International Responsibility

We must think globally when we act locally. Global responsibility requires ecological interdependence among provinces and nations, and an obligation to accelerate the integration of environmental, social, cultural and economic goals. By working cooperatively within Canada and internationally, we can develop comprehensive and equitable solutions to problems.

10. Global Development

Canada should support methods that are consistent with the preceding objectives when assisting developing nations.

Canada's federal government has spelled out its priorities for environment-related improvements and control. These priorities are:

1. Toxic Substances

Prior to 1988, diverse legislation dealing with toxic substances included the Environmental Contaminants Act; Canada Water Act, Part III; Clean Air Act; Ocean Dumping Control Act; and Section 6(2) of the Department of the Environment Act (1979).

In 1988, a new Environmental Protection Act consolidated and extended these, imposing significantly greater penalties for a breach of the toxic chemical provisions. This Act also empowers the Minister to recall chemicals and other products which he or she deems unsafe. Some suggest that this Act is one of the most advanced of its kind in the world.

2. Acid Rain

For Canada, acid rain has been a significant social and political issue, since United States emissions are claimed to be a substantial cause of acid rain in Canada. Throughout the 1980s, negotiations between Canada and the United States have resulted in some mutually supportive programs, including research concerning the development of new technologies and tighter regulations.

3. Water Resources

For several decades, water resources management has been a subject of international agreements, as well as a domestic concern. In particular, the Great Lakes basin has been a special focus because of its size.

Other issues of public attention include growing imbalances between water supply and demand, especially in the Prairies; inadequate water quality in various parts of the country; proposals for major diversions in Canada and export to the United States; and conflicts in water use plans among provinces and territories.

4. Land Resources

Maintaining the productivity of land is becoming more problematic because of the gradual disappearance of forest areas and the undesirable side effects from reliance on chemical fertilizers. Related issues include: multiple land use; possible degradation of soil quality and loss of wildlife habitat; increasing soil erosion and water supply considerations; and land-use demands from urbanization.

5. Climate Change

In 1988, a world conference held in Toronto emphasized the seriousness of the threat of climate change. To meet the threat of global warming, Canada has placed a priority on limiting greenhouse gases.

6. Waterfowl Protection

Populations have declined significantly, and joint Canada-United States efforts produced the North American Waterfowl Management Plan (NAWMP) in 1986. NAWMP seeks to restore and protect duck habitats throughout Canada and the U.S.

7. State of the Environment (SOE) Reporting

To improve and provide open access to information on the status and trends of environmental quality

and natural resource use, information is to be readily accessible to the public and all interested bodies. Key functions of SOE reporting are the preparation of a national report every five years; preparation of reports and fact sheets on high profile environmental issues; provision of guidance and assistance to federal departments in their preparation of sectoral reports and information; and development and maintenance of a publicly accessible SOE data base in cooperation with stakeholders.

8. National Parks

While Canada enjoys immense land and water spaces, the creation of park management plans must be a high priority if future generations are to enjoy natural habitats.

9. Sustainable Development

Underlying all other priorities is a new recognition of the need for Sustainable Development. This recognizes the desirability of economic growth and change, and acknowledges the right of individuals and organizations to pursue economic goals, including sales and profits.

For development to be sustainable, however, today's decisions must permit future generations to enjoy a quality of life that is similar, or hopefully more desirable, than we experience today. Our government is particularly concerned about damage to the environment. Such damage may pose a threat to future human health, and may severely restrict the opportunities of future generations.

Canada's New Green Plan

Throughout 1989 and 1990, Canada's federal government developed an active dialogue with Canadians in order to establish a consensus concerning new steps to achieve a healthy environment. As part of this process, the federal government developed a background paper, "A Framework for Discussion on the Environment," which was released in March 1990. The federal Minister of the Environment has stated, in his preface to the Green Plan, that:

The resulting Green Plan is the most important environmental action plan ever produced in Canada. It is the source for more than 100 important and well-funded initiatives over the next five years. It is a comprehensive plan that deals with our environment as inter-related and whole. In addition to the \$1.3 billion the Government of Canada already spends annually on the environment, the Green Plan commits an additional \$3 billion in new funds over five years.

*The Green Plan provides definite **targets and schedules** which will drive environmental initiatives within federal jurisdiction for years to come. These will also form the basis on which Canadians can judge our overall progress.*

*Finally, **Canada's Green Plan** is a statement of strengthened partnerships. Canadians have been involved in its development; they will continue to be involved in its implementation.*

Canada's new Green Plan presents explicit recommendations in regard to each of the following:

- Health and the environment
- Protection of water supplies
- Keeping toxics out of the environment
- Reducing smog
- Cutting wastes in half by the end of the century
- Sustainable forest development
- Sustainability in agriculture
- Sustainability in fisheries
- Protecting ecological areas
- Protecting wild life
- Commemorating Canada's historical heritage
- Preserving the integrity of Canada's northland
- Action to prevent global warming
- Action to prevent ozone depletion
- Acid rain controls
- Supporting international environmental activities
- Improving cooperation between levels of governments as well as between government, industry and consumers
- Expanding environmental information
- An environmental citizenship program
- Supporting new science
- New legislative, regulatory and market tools for change
- Federal environmental stewardship
- Environmental emergencies

Canada's new Green Plan indicates the commitment of the federal government to environmental issues. It demonstrates the need for new solutions to problems that increasingly threaten the health and well being of future generations.

The Green Plan also suggests that environmental protection will remain an ever-changing subject as more scientific information becomes available and as we become more aware of new challenges.

2 You Can Make a Difference

You and Your Organization Can Make a Difference

Sustainable development involves everyone, not just big organizations and environmental crises.

Do you know that do-it-yourself mechanics in North America spill more oil each year than the Exxon Valdez?

Each year, do-it-yourself mechanics steadily poison the environment by illegally dumping an estimated 240 million gallons of used motor oil in back yards and storm sewers, or sending it to landfills - where it will find its way into ground water and, eventually, into the water supply. The U.S. National Oil Recycling Association says the dumping is 25 times the amount of oil lost when the Exxon Valdez ran aground in Alaska. When the oil is dumped in small dollops of 4 or 5 quarts, it isn't seen as a lot, but it can lead to a big problem. Is your organization, or are your employees, guilty of this?

Do you remember the nuclear meltdown at Chernobyl and the disaster at Three Mile Island?

Our societal decision to use nuclear power means the steady accumulation of nuclear wastes - spent fuel rods, hundreds of millions of gallons of liquid wastes, and the nuclear plants themselves, each of which can

only be used for a limited number of years. Nuclear wastes are expected to have a half-life of ten thousand years. But many other sources of energy also result in damage to air and water. Reliance on oil, gas, and coal will increase emissions such as carbon dioxide and sulphur dioxide. Conservation of energy by every organization and every individual is necessary to limit our reliance on these sources of power, and to limit the gradual accumulation of these nuclear wastes and other damaging emissions.

Did you read about the chemical blob that was suddenly discovered in the St. Clair River, and the problems it caused for Dow Chemical Company Limited?

Similar dry cleaning solvents are dumped every day by thousands of organizations. Non-biodegradable containers are used regularly by thousands of organizations. Does your organization create hazardous wastes? Are your products "environmentally friendly?"

Did you read about ground water poisoned by the Love Canal, and the permanent threat to human health caused by the disposal of industrial wastes at Niagara Falls?

Canadian farmers have greatly increased their use of chemical fertilizers and insecticides, to the degree that run off from agricultural land is causing permanent toxic damage to our supplies of ground water everywhere. Many organizations add their toxic wastes to this gradual destruction of our basic

water supplies. We are only beginning to understand the impact on human health caused by drinking water that contains these toxic chemicals.

Have you read about the government closure of the Uniroyal Tire Plant in Elmira, Ontario, because Uniroyal was contaminating the town's water supply?

Your organization and your employees' residences create liquid wastes that enter municipal sewage systems, creating a permanent pressure on the purity of our water systems. Closing plants means lost jobs. What specific steps can you take to help improve water purity?

Do you remember how Inco used to release large amounts of chemical wastes into the atmosphere, contributing to our acid rain problems?

Inco was not alone in causing air pollution. The daily use of chlorofluorocarbon propellants is destroying the ozone layer, creating greater risk of skin cancer as well as the threat of global warming. Fuel emissions are also increasing the carbon dioxide in the atmosphere, adding to this threat of "global warming." Is your organization adding to this problem?

Are you aware of the frantic searches by municipal governments for new landfill sites?

A huge range of products and containers are not

designed to minimize wastes. Daily disposal of corporate and residential garbage is rapidly using up our landfill sites, requiring a more and more difficult search for new landfill sites. Increasingly, people are organizing politically to prevent the creation of new landfill sites near their residential areas. Where will we go for new landfill sites? Is your organization doing all it can to reduce its wastes?

Have you read about the depletion of our oil supplies and the need to develop new and more expensive oil fields in the Athabaska tar sands and Hibernia?

Every day organizations and consumers are using up our natural resources. Many of these resources cannot be replaced or replenished. For example, our phenomenal use of paper has led to the destruction of vast forests, and a substantial financial commitment is necessary if our forests are to be replanted. Does your organization seek new ways to reduce its use of natural resources as a percentage of its total activities?

Have you heard about public pressure on MacDonalds to change its containers, and about Loblaw's advertising campaigns for its "Green Products"?

In the 1990's, consumers are demanding "environmentally friendly" products. A small organization may not be aware of the sales that it is losing as a result of this growing consumer concern. For many companies, new opportunities exist to modify their products and their packaging to create

a competitive marketing advantage and a more positive public image. Are you doing all you can to participate in this "greening" of consumers?

Did you read about the PCB fire in Montreal?

Today, our society has a new concern about the everyday transportation, storage, and destruction of PCBs. Fears exist that human health may be severely endangered by PCBs. Many organizations deal with PCBs, for example, in appliances and transformers. New government requirements may impose changes on the way that your organization handles PCBs. Do you have any other waste products that may result in dangerous situations?

Have you seen the Texaco advertisement about tire pressure and gasoline consumption?

Texaco has an advertisement reminding the public that if everyone kept the proper air pressure in their tires, the United States would save 4 million gallons of gasoline a day. Your organization can exercise more care in its use of a whole range of products. Conservation has become an important component of Sustainable Development. Creating a positive public image for your organization can be "smart business." Are you doing all you can?

Have you read about the enormous financial costs experienced by big organizations in dealing with environmental crises that they have caused?

The Canadian Institute of Chartered Accountants

(C.I.C.A.) is now studying how to include environmental issues in corporate financial statements. Are you prepared to make these calculations? Are you prepared for their impact on your financial statements? Already, as of December, 1990, the C.I.C.A. now requires that all Canadian corporate financial statements must include explicit estimates of the costs that will be necessary in the future for waste removal and site restoration. The C.I.C.A. Handbook states that, as of December 1990:

3060.39 - *When reasonably determinable, provisions should be made for future removal and site restoration costs, net of expected recoveries, in a rational and systematic manner by charges to income.*

3060.42 - *When the net carrying amount of a capital asset, less related accumulated provision for future removal and site restoration costs and deferred income taxes, exceeds the net recoverable amount, the excess should be charged to income.*

New Laws and Regulations

In the 1990's governments will be hitting organizations with new laws and regulations.

One of the key challenges for Canadian business in the 1990's will be anticipating and dealing with environmental issues and the growing body of legislation affecting the way companies conduct their affairs with regard to the environment.

**Fraser and Beatty,
Environmental Law Group.**

A vast proliferation of new laws and regulations at both the federal and provincial levels will now impact corporate production and investment decisions. New methods of government monitoring, new enforcement procedures, and higher financial penalties will command the attention of corporate managers.

Within each organization, human error can lead to unforeseen environmental problems, and consequent government prosecutions. In view of this, organizations will have to adopt new policies for employee education and training, and will have to develop a new corporate culture that includes a new concern for environmental issues.

There is an increasing trend in the law to impose personal liability on corporate directors for environmental matters. Members of a corporate Board of Directors must follow new procedures to ensure that the organization does comply with the law. New environmental policies will include Board of Directors statements to management and employees that explicitly require attention to relevant laws and regulations. Corporate environmental policies will require new reporting systems to the Board, with explicit designation of officers to be in charge of environmental protection.

You and Your Organization Will Have to Change

One overall statement may be made in regard to all organizations. Management teams will have to develop new environmental policies and a new corporate culture which is inclusive of them. These policies will have to be adopted at all levels of the organization and by all individual employees. The

following quotation emphasizes the importance of these changes:

Today, companies that don't take environmental concerns into account in their business plan are exposing themselves to potential ruin. Before the 1980's, it was rare for such issues to be so important that they affected the outcome of major transactions. But now, the environmental risks involved in the acquisition of a property or business colour every aspect of the entire negotiation process, and represent a constant source of concern. They have given rise to research and additional studies that would never have been dreamed of barely 10 years ago.

**Benoit Boivin and Louis Gosselin,
CA Magazine, pg. 52-54. 1990.**

You Can Profit from Sustainable Development

One of the themes that repeatedly arises in the case studies found in Chapter 9 is that you can do well by doing good. Sustainable Development is good business practice. The conservation of energy, the recycling of products, the more careful use of the materials you consume in your production process - all these can reduce production costs and increase your profitability. The public's demand for environmentally friendly products provides you with a myriad of opportunities to create new products, or distinctly unique versions of old products. You can create new market niches that give your organization a special public image that can be turned to your commercial advantage.

In their 1989 book *The Green Capitalists*, published by Victor Gollancz, John Elkington and Tom Burke discuss a wide range of products that manufacturers have dramatically changed in response to Sustainable Development concerns. They indicate how such innovations and modifications have benefited the organizations that have introduced them. In their words:

From lighter cans to jet engines which are cleaner, quieter and more fuel-efficient, industry is coming up with new generations of products which are beginning to win significant shares of existing markets and also look set to open up enormous new markets. In the age of the microchip, too, a degree of 'intelligence' can be built into many products, cutting their energy consumption and pollution output.

Question: *What have an aerosol, a tin can, a yacht, an outboard engine, an automobile and a passenger aircraft got in common?*

Answer: *They, and a growing range of other industrial products, have had to be completely redesigned to cut pollution or the consumption of energy and other natural resources.*

Notes

3 New Problems You Will Face

Those companies which lack the energy or the commitment to meet the demands of Sustainable Development will lose their customers, their reputations, their investors and their best employees to better performers — not in any particular order but all at the same time.

**Bob Picard, Vice-president of Technology,
Shell Canada Ltd.**

The New Sustainable Development Challenges of the 1990's Will Not Be Easy to Deal With

Sustainable Development incidents and issues are creating new problems that require new solutions. A central concern in dealing with these is the maintenance of cost competitiveness. Organizations in other countries may not have to comply with environmental regulations that are as tough as the ones managers will face in Canada in the 1990's. Products made by such foreign competitors may sell at a lower price than similar products made by the Canadian organization. Consequently, most decisions will require careful analysis in terms of their impact on production costs before they are approved and implemented.

In the past, the delegation of decision making within the organization has often rested upon the ability to calculate costs and benefits in dollar terms. Success criteria have often included cost reductions

5. Initiating research and development focused on environmental issues

At the present time, considerable scientific uncertainty exists in regard to the linkages between various environmental issues and the state of human health. Scientific uncertainty exists with regard to the regenerative capacity of the natural system, and the degree to which a certain amount of pollution is acceptable within the objectives of Sustainable Development.

Scientific uncertainty also exists concerning the technologies that may be used to solve environmental problems.

Management must deal with the question of how much corporate funds should be devoted to research and development that attempts to reduce these uncertainties. Management must decide the appropriate priorities for these issues within its research and development budget.

6. Analyzing the costs and benefits of alternative decisions

For many decisions, management will have to develop new methodologies for estimating costs and benefits. For example, the new C.I.C.A. accounting standards mean that management will have to estimate the present discounted value of future removal and site restoration costs.

Risk and uncertainty enter into these calculations and analyses to a significant degree. Ways of quantifying these risks and uncertainties will have to be developed. Management judgement will play a significant role.

3 New Problems You Will Face

Those companies which lack the energy or the commitment to meet the demands of Sustainable Development will lose their customers, their reputations, their investors and their best employees to better performers — not in any particular order but all at the same time.

***Bob Picard, Vice-president of Technology,
Shell Canada Ltd.***

The New Sustainable Development Challenges of the 1990's Will Not Be Easy to Deal With

Sustainable Development incidents and issues are creating new problems that require new solutions. A central concern in dealing with these is the maintenance of cost competitiveness. Organizations in other countries may not have to comply with environmental regulations that are as tough as the ones managers will face in Canada in the 1990's. Products made by such foreign competitors may sell at a lower price than similar products made by the Canadian organization. Consequently, most decisions will require careful analysis in terms of their impact on production costs before they are approved and implemented.

In the past, the delegation of decision making within the organization has often rested upon the ability to calculate costs and benefits in dollar terms. Success criteria have often included cost reductions

in dollar terms or the achievement of certain profit or sales targets.

With Sustainable Development issues, new success criteria will have to be developed as a guide to decentralized decisions. A particular difficulty is that the attainment of Sustainable Development objectives may not entail cost minimization or the maximization of sales and profit. In addition, the attainment of these objectives will probably require new reporting relationships. The new designation of responsibilities will alter existing management structures.

Some of the problems you may have to face include the following:

1. Cancellation of investment plans

In some cases, potential investments will have to be abandoned. Everyone has read about the cancellation of some investment plans in the pulp and paper industry. Other industries will also find some of their investment possibilities eliminated by new regulations.

2. Changes in equipment and production processes

Managers will have to respond to new standards in regard to corporate liquid effluent, solid waste, air pollution, and product characteristics and packaging. These responses will often have to include the purchase of new equipment and the modification of traditional production processes. This will entail corporate research in regard to alternative ways of

complying with the new standards, retraining of employees, changes in sales and marketing programs, and analyses of the costs involved in alternative solutions.

3. Responding to new judicial decisions

For many Sustainable Development issues, government legislation and regulations do not provide clear interpretations and guidance. It is only with the passage of time and the creation of judicial precedents that corporate management can understand more clearly what new legislation and regulations will mean in terms of concrete situations.

Many individual decisions will require management's judgement in regard to the likely course of future judicial decisions. When should your organization appeal certain control orders or certain conditions connected to government approvals?

4. Adjusting to new consumer preferences

Management's judgement will be involved in evaluating the future impact of consumer complaints, as well as the preference of consumers for "environmentally friendly" products.

New customer concerns may lead in some cases to the boycott of certain products. In each case, management will have to predict future societal attitudes, and decide how today's decisions should be altered to take into consideration these future attitudes.

5. Initiating research and development focused on environmental issues

At the present time, considerable scientific uncertainty exists in regard to the linkages between various environmental issues and the state of human health. Scientific uncertainty exists with regard to the regenerative capacity of the natural system, and the degree to which a certain amount of pollution is acceptable within the objectives of Sustainable Development.

Scientific uncertainty also exists concerning the technologies that may be used to solve environmental problems.

Management must deal with the question of how much corporate funds should be devoted to research and development that attempts to reduce these uncertainties. Management must decide the appropriate priorities for these issues within its research and development budget.

6. Analyzing the costs and benefits of alternative decisions

For many decisions, management will have to develop new methodologies for estimating costs and benefits. For example, the new C.I.C.A. accounting standards mean that management will have to estimate the present discounted value of future removal and site restoration costs.

Risk and uncertainty enter into these calculations and analyses to a significant degree. Ways of quantifying these risks and uncertainties will have to be developed. Management judgement will play a significant role.

In its 1989 annual report, Noranda presented its corporate position in regard to these kinds of analyses:

Noranda's determination to do its share to fix the problem is unwavering. In current circumstances, however, it is important to note that claims and demands are often made without the basis of sound scientific evidence. It would be irresponsible for Noranda not to insist that there be solid ground as the basis for significant capital expenditure or the curtailment of operations that will result in job loss. Noranda will continue to press for balanced environmental assessments and demands from the many stakeholders concerned about this issue.

7. New decision-making processes and the assignment of new responsibilities

New legislation and regulations may threaten the future profitability of an organization, and may even threaten its continued existence. Human error can result in effluent "spills" that can result in huge government fines. These penalties may be imposed directly on management personally, as well as on the organization itself. Consequently, managers need new chains of responsibility and reporting to ensure that management decisions are adhered to by all employees in their daily jobs.

For the operational decisions made by lower-level management, new procedures must be developed to ensure that environmental issues enter into decisions in the ways and to the extent that senior management wishes.

8. A new role for corporate external affairs

Traditionally, many organizations have created positions to deal with government relations and the public. Sustainable Development issues greatly increase the importance to the organization of these roles. Environmental issues require an understanding of new legislation and regulations. They require a new level of involvement with politicians and civil servants in order to shape legislation, and in particular regulatory decisions, so as to facilitate corporate compliance at least cost.

Many regulatory decisions involve a considerable degree of judgement on the part of regulatory agencies and civil servants. In many cases, scope exists for the organization to influence these decisions in ways that are favourable to the organization. The case study of Shell Canada's restoration of its Oakville site, illustrates the positive way in which you may work with government officials to solve Sustainable Development problems.

The new role that has been created for themselves by citizens' action groups requires a response procedure within the organization that is designed to minimize potential harm to the organization's public image. Today, corporate affairs offices must deal with more than government officials. Citizen action and coalition groups as well as individuals have placed pressures on companies. As a result, there is a greater awareness of the importance of community concern in many aspects of an organization's operations. Communications and public affairs departments are now responsible for maintaining positive liaisons with the public at large in an attempt to maintain a solid image.

The new role for corporate external affairs involves not only a new role vis-à-vis individuals, citizens' groups, and governments. It also involves new reporting relationships within the organization, since Sustainable Development issues may relate to job functions throughout the organization, and may deserve the attention of senior management and the Board of Directors.

9. Environmental audits

Sustainable Development will affect a long list of technical or engineering aspects of your organization. Concern for the environment means that your organization will have to evaluate its performance periodically, including the measurement of various activities such as the amount of waste, the amount of materials used in the production process, and the biodegradable nature of the products and packaging that you use and create.

10. Employee Involvement

Essential to your success in Sustainable Development is the ongoing involvement of your employees. This subject is so important that we have devoted the whole of chapter 7 to it.

Notes

4 The Law Is Changing Rapidly

Are You Prepared to Keep up with These Changes?

In the 1990s, you are being confronted by a vast and growing array of new laws and regulations. No doubt you have been reading about the Rafferty Dam, and the ongoing conflict between the federal government and the Saskatchewan government over the meaning and implications of today's environmental laws. When governments themselves are unsure about how to comply with environmental laws, it is obvious that these issues are not simple or straightforward.

Scientific knowledge is expanding rapidly with regard to the relationships between the environment, human health, and particular types of corporate activities. The interest and concern of the public is increasing, leading to persistent demands that legislation and regulations be tightened, and that enforcement be toughened. Meanwhile, judges and regulatory agencies are developing new interpretations of existing legislation. In view of these changes, your corporate interface with Canadian governments is increasing in importance.

In your organization, your existing machinery and equipment may not comply with tomorrow's legal standards. Your products and packaging may have to be changed. New marketing concepts may be necessary. From these perspectives, you can see the necessity for corporate reorganization in order to

deal effectively, in an ongoing everyday process, with various government agencies. The following chapters suggest how you may wish to approach corporate reorganization for this purpose, but this chapter considers some of the new realities of corporate-government interface.

Federal and Provincial Laws

In Canada, both the federal and provincial governments have the authority to create environmental laws.

Federal Government laws include:

**Canadian Environmental Protection Act
Fisheries Act
Transportation of Dangerous Goods Act
Hazardous Products Act
Hazardous Materials Information Review Act
Arctic Waters Pollution Prevention Act
Atomic Energy Control Act
International Boundary Waters Treaty Act
Navigable Waters Protection Act
Northern Inland Waters Act
Territorial Lands Act**

Each province has its own set of laws, in addition to those of the federal government. For example, the laws of Ontario include:

Environmental Protection Act

Ontario Water Resources Act
Pesticides Act
Dangerous Goods Transportation Act
Environmental Assessment Act
Energy Act
Gasoline Handling Act
Municipal Act
Occupational Health and Safety Act

Interpretations of the Law: Regulations, Agencies, and Enforcement

Members of Parliament pass legislation that consists of general statements. These statements have to be supplemented with more precise regulations that are geared to specific circumstances. In many cases, these regulations are developed by civil servants within particular ministries. They may also be developed by the employees of various government agencies, or by public servants working at the municipal level.

Regulations are often modified without any changes having to be made in the basic legislation. The public servants responsible for enforcing the law have considerable leeway in interpreting what should be done in particular circumstances. Over time, judges decide in cases of dispute what the law really means, and these judicial decisions become part of the law, and serve as precedents.

For managers, the nature of environmental law (involving regulations, agencies, and interpretations) means that the corporate structure must be organized so that corporate activities are capable of continual adjustment in response to the new realities of the

law. The nature of environmental law also means that organizations can play a major role in influencing these interpretations. The purpose of this new role is to achieve the legislative objectives with a minimization of compliance costs.

Director, Manager and Employee Liability

Canadian law provides for personal liability as well as corporate liability. If your organization is judged to have violated the law, it may not be enough to pay a corporate fine and to rectify the situation. A judge may find that you, your employees and your Board of Directors should suffer personal penalties as well. This adds to the importance of this subject for you and your organization.

Who may be liable under Canadian Laws?

Present Owners or Tenants

Secured Creditors or Receiver Managers

Former Owners or Tenants

Employees, Agents, Officers or Directors

Real Estate Agents, Consultants or

Professional Advisers

Governments, Agencies or Ministries

New Obligations for Financial Institutions as Lenders

A recent law now makes financial institutions legally responsible in certain cases for the costs that their clients incur in connection with environmental matters. A case study on the Royal Bank of Canada,

summarized in chapter 9, explains that a lender's security depends upon the ability to obtain title to real property in the event of default. If the borrower has violated environmental laws, or if the borrower is open to law suits from customers, employees, or the general public, then the lender may find that its security is worth less than it anticipated. In some cases, lenders have found such security actually to be of negative value. As stated in the Royal Bank case:

If the lender's security is dependent upon potential title to real property, the value of the security can be severely damaged or even destroyed by the presence on the site of hazardous wastes or residues. Often a sale of premises may not be permitted until cleanup of the contamination, and cleanup costs may well exceed the value of the property. Liability for cleanup costs generally attaches to whoever is in "care, control or management" of the property regardless of when the contamination occurred.

If the lender takes over control of the business in the course of enforcing its security interest, the lender could end up assuming liability many times greater than either the loaned amount or the original estimated value of the security. The liability could take the form of responsibility for cleanup costs in relation to preexisting contamination (or for the consequences of any new release of contaminants), or for damages in common law civil liability suits brought by third parties. Banks are, of course, seen as the ideal "deep pocket" targets for such suits. Moreover, if the lender is in a position of "care, control and management" of a current source of contamination

which is in violation of governmental regulations, officers and directors of the lender could also become subject to criminal penalties including fines and/or imprisonment.

The Need to Take Positive Action

Many of Canada's environmental laws place a responsibility on you and your organization to inform appropriate government representatives about certain corporate activities. This means that your corporate structure must be designed to ensure that you do communicate as required, and that these communications are well considered.

Your duty to notify government representatives may include:

Transportation of goods that are considered dangerous
Accidental pollution spills or leakages
Applications for environmental permits to conduct activities

Purchase or Sale of Assets

In the United States, New Jersey and California now require that an environmental assessment be conducted for property prior to any purchase or sale. While this is not yet a legal requirement in Canada, nevertheless, Canadian property may carry with it a future obligation for cleanup and site restoration. Consequently, you and your organization now have to be concerned about potential future costs that may

be connected with a specific piece of property due to environmental concerns. For mergers and acquisitions, these obligations now take a prominent position in the negotiation process.

Due Diligence

Canadian law requires that you, your employees, and your Board of Directors maintain due diligence in regard to environmental concerns. This means that beyond fulfilling the *letter* of the law as currently interpreted, you and your organization must continually act from the perspective of the *meaning* of the law.

Due diligence is particularly important in regard to potential accidents. You and your organization must have in place policies and procedures that will minimize the harmful effects of possible accidents. These policies and procedures must include measures that provide your employees with guidance concerning such matters.

New Threats of Environmental Class Actions and Private Prosecutions

A recent publication by Fraser and Beatty emphasizes the importance of likely changes in the opportunities for class actions and private prosecutions:

Several laws potentially on the Ontario horizon will, if brought to legislation, have a very significant impact on the availability and financial feasibility of class actions in environmental matters and there is every likelihood that they will be

implemented into law before too long.

Bill 213, An Act respecting Class Proceedings, was tabled in the Ontario legislature by Attorney-General Ian Scott in the last session of the Liberal Government together with a related bill, **Bill 214, An Act to amend the Law Society Act** to provide for Funding to Parties to Class Proceedings. Indications are that these particular Bills may be picked up by the new Government, given the New Democrats' commitment to environmental issues and to questions of public access to the courts as an instrument of policy.

Until now class actions were only permitted by the courts of Ontario in limited and inconsistent circumstances, after overcoming procedural hurdles which frequently operated as a serious impediment. Activist groups and public interest advocates have therefore been denied one of the most effective tools used by their American counterparts to shape public policy when prosecution or legislation are for any reason unsatisfactory. Groups of individuals who suffer damages from a common cause have also been handicapped in asserting their claims with the advantages of a representative suit. The stated purpose of Bill 213 is to facilitate class proceedings in Ontario, remedying these problems.

**Clayton W. Caverly, Fraser and Beatty,
Environmental Law Update, Nov. 1990.**

Pollution and Profitability

New laws mean that pollution is no longer profitable. Canadian governments have now accepted a responsibility for future generations as well as today's citizens. This marks a new era in regard to corporate-government relations. Corporate decisions and corporate structures for making these decisions that were once acceptable will now have to be changed in the context of the new and continually changing law, which is being developed to ensure that pollution is no longer profitable.

Laws in Other Countries

Globalization has become a corporate buzz word. Even corporations that buy and sell only within Canada will face intensified competition from foreign companies that will be operating more actively in Canada.

Most organizations today are becoming increasingly involved with international trade and investment, purchasing components or raw materials abroad, selling throughout the world, and entering into various kinds of joint ventures and subsidiary relationships.

No longer is it enough to be aware of Canadian legislation. Environmental laws and regulations vary considerably from one country to another. It is in your organization's interest to be fully aware of Sustainable Development realities in other countries.

Notes

PART B

How Well Are You Doing?

5 Grade Your Organization

A "Do-It-Yourself" Environmental Audit: Twenty Questions for the Sustainable Development Agenda of your Executive Committee

You may use the following questionnaire every few months to track your improvement over time or to compare your organization with others.

You may wish to develop your own questionnaire, with objectives and success criteria geared to the particular circumstances of your organization. You may also wish to estimate the score for your competitors, to see how your organization is performing compared with your competitors.

SCORE

- 0 = no plans are yet being developed**
- 1 = plans are being developed**
- 2 = plans have been developed, and
your organization has begun the
initial stages of implementation**
- 3 = plans are being implemented, but
few changes have yet been achieved**
- 4 = some changes have been achieved,
but some obvious improvements are
possible**
- 5 = all planned changes have been
successfully implemented**

Sustainable Development

Grade your organization: give your organization a grade between 0 and 5 for each of the following questions. The twenty questions have a maximum total score of 100.

Question 1: Do you have a clear corporate philosophy and culture with regard to Sustainable Development, and are these expressed in a formal statement?

As a manager, you determine the scope and intensity of your organization's Sustainable Development activities. A clearly articulated corporate philosophy, expressed in a formal statement, can provide the necessary guidance for everyone else in the organization. In Chapter 10 David Robertson, Senior Vice-President Corporate Banking, The Royal Bank of Canada, presents a clear direction for the Bank's employees and customers. This illustrates the kind of statement that you may wish to consider in communicating your vision and commitment.

A formal statement by your Board of Directors may be useful in providing guidance for employees. It may also help to protect your Board in time of potential legal prosecution, as concrete evidence of the Board's "due diligence" in Sustainable Development matters.

Question 2: In your corporate decisions, do you place heavy weight upon future profits and future tougher laws as opposed to current profits and current laws?

Sustainable Development reminds us that a wide range of decisions will affect our future productive

capacity. Your organization can probably influence the future in many ways.

To what degree are you prepared to take a long-term view? Investing in your employees' education and retraining may be essential for future competitiveness, even though it may reduce today's profits. Investing in R&D may lead to innovations that can only be realized years from now, yet they may become necessary for your future competitiveness. Investing in your community may not pay off in an immediate, direct way. Yet your ability to attract future employees and to thrive as a organization may depend upon the vitality in the community around you.

The case studies in Chapter 9 reveal a basic, underlying concern for the future, manifested in a host of current decisions.

We can expect tougher legislation and more severe enforcement in the future. Today's investment decisions may create plant and equipment that cannot meet tomorrow's standards. From now on, you will have to plan your investment decisions with due consideration to future laws.

This future-oriented perspective is relevant also to your decisions about the degree of "environmental friendliness" of your products and of your packaging.

Furthermore, the procedures and policies discussed elsewhere in this handbook may require considerable time for their development and implementation.

Thorough planning for these will be even more important for the future than it is today. Don't let the future surprise you.

Question 3: Do you integrate your environmental planning with your financial planning, and are you prepared to introduce environmental liabilities in your financial statements?

The Canadian Institute of Chartered Accountants is working on new ways of bringing environmental issues directly into your annual financial statements. Already, it has established the requirement that you include estimates of future clean-up and site restoration costs in your financial statements. The message here is simple: From now on, you will have to include environmental planning in your financial planning. Production and investment decisions will have to include environmental considerations. Business decisions will have to be future-oriented, and will have to take into account the future costs entailed in today's decisions.

Question 4: How appropriate is the allocation of responsibility for Sustainable Development within your organization?

Most organizations find it best to create a special task force to develop the organization's program and to delineate the organization's precise targets. The task force is necessary because Sustainable Development issues cut across various job responsibilities and departments. Meaningful targets must be seen as reasonable by everyone who is in a position to support their attainment. The Bell Canada case study, summarized in Chapter 9, describes Bell's approach

to the clarification of objectives and allocation of responsibility.

While a task force may bear responsibility for developing the organization's program, nevertheless, the management and Board of Directors - in their traditional reporting relationships - ultimately bear responsibility for modifying the program, if necessary, and for approving it in final form.

A common question relates to the structure of the organization: Should environmental responsibility pass through a single manager's hands, and if so should that manager have other duties as well? Organizations differ widely in their responses to this question. In some organizations, Sustainable Development responsibilities are placed in the health and safety department or in the external affairs department. In others, the C.E.O. grasps these responsibilities personally. Sometimes, a new position is created, with a reporting relationship to the C.E.O., and often with membership on the Board of Directors.

Most important, perhaps, is the authority of those with Sustainable Development responsibilities. In some organizations they act only as a "resource" function to which other departments may come for advice if they wish. In others, those with responsibilities for Sustainable Development have a veto power over all production and investment decisions, so that their approval is necessary for all corporate activities. Some companies also require that all documents bearing upon Sustainable Development require signatures from such a corporate division before approval by the Board. This is particularly true in sectors where regulations are severely enforced.

You will have to decide what structure is best for your organization, and you may wish to change this decision as time passes.

Question 5: Do you have a program of employee education that supports Sustainable Development?

A report on Sustainable Development activities of the Canadian Labour Congress, *A Changing Role for the Canadian Labour Congress*, emphasizes the need for education of all corporate employees, including management. Certainly, employees must be made aware of the organization's Sustainable Development program if they are to work effectively in its implementation. Employees must understand the rationale for specific targets, and for personal rewards connected with their attainment. While associations and unions may offer educational courses, it will probably be necessary to develop in-house workshops to discuss your specific targets and rewards.

Question 6: How appropriate and operational are your corporate procedures for crisis management?

The frequency and importance of environmental crises vary amongst companies. For some companies, it may be useful to establish procedures prior to a crisis. In particular, it is necessary for all employees to know the chain of responsibility for decision making during a crisis. Time wasted can greatly intensify the future costs of dealing with a crisis. Many point to the Exxon Valdez experience as a classic case where

uncertainties and delays magnified the problem.

While many crises are caused by leakages and spills of dangerous goods, they may also arise because of public perceptions and marketing. For example, Canadians will not soon forget the "tainted tuna" scandal. The case study of Loblaw's Green Products and Pollution Probe in Chapter 9 indicates a range of public concerns that altered an organization's marketing program. Frequently, we read about an organization having to recall some of its products from the retail shelves. How would your organization react in such a crisis?

Question 7: Do you have procedures for monitoring the environmental impact of your organization, and the conservation of energy and other products that you use?

Your monitoring process is dependent upon your allocation of responsibilities, and your establishment of reporting relationships and corporate targets.

Monitoring is necessary to ensure employee involvement, since employee dedication to your Sustainable Development objectives will depend upon your reinforcement and reward systems.

Feedback is necessary to verify the appropriateness of your targets, and to modify them over time.

Monitoring procedures will vary depending upon the nature of your business. Nevertheless, it is essential that monitoring be accurate, and conducted at appropriate intervals, and that the results of monitoring be made available to employees as part of their job evaluation process.

Question 8: Do you undertake research to reduce environmental risks?

The entire Sustainable Development program can be seen as a means of reducing risks. By focussing on future outcomes, you can better prepare for undesirable, negative possibilities.

A clear vision communicated effectively to employees, an organizational structure to deal effectively with Sustainable Development issues and crises, employee education and scientific research - all these can help you to reduce environmental risks.

The threats of new legislation, tougher enforcement, and more lawsuits - all these make the reduction of risks a financially advantageous objective over the long term.

Is your organization doing all it can today to reduce its exposure to risks?

Question 9: Are you aware of changes in customer preferences as a result of concerns about Sustainable Development?

Sustainable Development has introduced new factors into your marketplace. Many of your customers will be altering their preferences in accordance with their changing perceptions of sustainable Development issues.

Loblaw's new "green products" and MacDonald's new packaging are illustrations of the need to adjust to these realities. If you lead the way in making appropriate changes, you may establish a marketing advantage over your competitors.

You can expect that governments and their agencies will be more conscious of your organization's position in regard to Sustainable Development issues. As purchasers of your products and services, they will likely be influenced in contract decisions by your position relative to that of your competitors.

The federal government is altering its grant provisions to include Sustainable Development requirements on the part of grant recipients. If you wish to apply for such grants, you will need to consider your organization's position in regard to these new requirements. An Environment Canada report called *Incorporating Sustainable Development into Economic and Regional Development Agreements - Atlantic Region Example* discusses these issues.

Question 10: Do you examine your insurance regularly from the perspective of potential environmental lawsuits and prosecutions?

Perhaps you have regarded your insurance needs as an automatic accounting matter. Sustainable Development issues mean that you really should review your policies from the perspective of possible lawsuits instigated by customers, government agencies, or the general public.

Tougher government laws, new judicial precedents, and possibilities for citizen actions all mean that you are not in the same "liability" position as you were five or ten years ago. Perhaps your insurance policies should be re-examined.

Many companies, for example, now insure their Board of Directors and senior employees in the event of personal prosecution for corporate actions.

Question 11: Do you have a favourable public image with regard to Sustainable Development?

Once you have established a Sustainable Development program, it is necessary for you to inform the public, especially your customers and potential customers. In Chapter 9, the Dow case study emphasizes the importance of public image, and the sensitivity of that image to negative media reports.

It is necessary not just to do good, but to be seen as doing good. From this perspective, your procedures for handling crises should include procedures for dealing with the media. Prior to a crisis, you should have thought about media relations under alternative scenarios.

The public now sees itself as a stakeholder in your organization, and believes it deserves to know what you are doing in regard to the Sustainable Development issues that affect the public's future well-being.

Question 12: If class action suits become acceptable in Canada, would your organization be safe from prosecution?

It is likely that at least some provinces will soon introduce legislation to facilitate class action suits for Sustainable Development issues. In the United States, these have become an important new threat to companies.

Now is the time to consider whether you should alter any of your activities, so as to minimize this

threat if class actions do in fact become more common in Canada.

Question 13: Do you communicate effectively with your shareholders about Sustainable Development activities?

Many companies now include a discussion of Sustainable Development issues in their annual report. Shareholders have become increasingly concerned about their organization's position in this regard. Concerns include, of course, the desire to be good corporate citizens.

However, concerns go beyond this to the question of possible financial exposure in the future to expenditures connected with new government regulations, and to possible legal actions against the organization.

The C.I.C.A. has, as of December, 1990, established new accounting regulations in regard to site restoration and clean-up costs, requiring that estimates of these now be included explicitly in your financial statements. You may wish to consider the inclusion of other information that will provide shareholders with a more complete understanding of your organization's position.

Question 14: Does your organizational structure provide for close working relationships with Government agencies and citizen groups?

Governments and citizen groups have now become stakeholders in your organization's Sustainable

Development. How can you best adjust your procedures to deal effectively with this new reality? While your answer will depend upon your organization's circumstances, it is clear that more management time will have to be devoted to understanding these new stakeholder concerns and to communicating regularly with the new stakeholders.

As discussed elsewhere in this handbook, you may choose among a variety of alternatives for your particular allocation of these responsibilities. What is essential is that someone in your organization have these responsibilities, with clear guidelines. Further, it is essential to have internal corporate communication channels that ensure dissemination of this information to all those within the organization who could be affected by the actions of government and citizen groups.

Question 15: Do you work effectively on Sustainable Development issues through your trade and professional associations?

Chapter 8 discusses the helpful assistance you can receive from various associations, ranging from your Chamber of Commerce through associations in your particular business sector, and including local community associations. Sustainable Development is very much a set of societal issues. It is only by working together that we can achieve progress.

Question 16: Are you prepared to compete internationally on the basis of environmental regulations in other countries?

In the new world economy, it is not enough to be aware of Canadian laws and Canadian public perceptions. With the tariff reductions under GATT and with the Canada-U.S. Free Trade Agreement, your range of competitors will expand, as will your marketing opportunities. To sell outside Canada will require that you be aware of - and comply with - laws in other countries.

Many European countries now have laws that are considerably tougher than Canadian laws. Some U.S. states, such as New Jersey and California, also have more extensive government involvement in corporate decisions. And class action lawsuits may pose a greater threat for you in other countries. Some commentators point to environmental regulations as the new trade barriers of the 1990's.

From these perspectives, you should become more familiar with laws and practices in other countries, and also more familiar with the perceptions and standards of their societies.

Question 17: Do you have a purchasing policy that evaluates the environmental friendliness of your alternative potential suppliers, so that your purchases can make the production decisions of your suppliers more environmentally friendly?

You and your organization can encourage your suppliers to modify their products and production processes in the interest of Sustainable Development. In many situations, it is possible for a supplier to make its product more environmentally friendly without additional cost. You can be the catalyst for

change. It may be useful to develop an explicit procurement policy, so that your employees are guided in their purchasing decisions to favour the suppliers that are doing most in support of Sustainable Development.

Question 18: Do you analyze potential acquisitions from the perspective of environmental liabilities?

Some U.S. states require that an environmental audit be conducted prior to the ownership transfer of any property. While this is not yet part of Canadian law, nevertheless, it is clear that a property can carry with it unlimited future costs for site restoration and treatment of hazardous wastes.

Purchase of a going concern now requires an assessment of that organization's Sustainable Development position, including its public image, corporate structure, employee knowledge, and future product acceptability. For mergers and acquisitions, you will now have to devote attention to possible future costs entailed in Sustainable Development issues.

Question 19: Do you have procedures to reward employees for individual successes in regard to Sustainable Development?

Employee dedication to Sustainable Development issues will depend, at least to some degree, on the personal rewards they can expect from the achievement of corporate objectives. You may wish to modify your job evaluation forms to include explicit

discussion of these achievements.

Achievement of Sustainable Development objectives may involve trade-offs with other objectives - such as current costs and profits - and these trade-offs must be discussed with your employees. The establishment of rewards can clarify the organization's objectives and provide guidance for employees in their areas of decision making.

Question 20: Do you have procedures for the ongoing refinement of your corporate strategy?

The report of the Canadian Labour Congress has emphasized the uncertainties involved in the current state of Sustainable Development issues:

Environmental decisions involve difficult value judgements that may be based on inadequate, conflicting or uncertain data and information. This "context of uncertainty" forces decision makers to establish their own common understanding of issues and the fundamental values that will guide them through the decision-making process. This situation is complicated by the fact that environmental values are diverse, diffuse, evolving and lacking in common definition or understanding.

In this state of uncertainty, your Sustainable Development program will have to be flexible, adjusting to new scientific knowledge, changing public perceptions, and your own production and marketing realities.

Is It Time for a Professional Environmental Audit?

As you worked through our "do-it-yourself" environmental audit, you may have realized that your organization will need to develop measurement indices for monitoring your success, and you may even have to undertake substantial research to analyze your organization's current environmental impact.

Many organizations hire professional consultants to assist them in this work. For some organizations, it may be appropriate to monitor dozens of activities, and to develop techniques and objectives in regard to this monitoring.

Environmental audits can be extremely detailed and comprehensive. They have to be tailored to the particular activities of each organization. Stora, a forest products firm, has developed a series of questions as part of its environmental audit. These questions require detailed scientific answers on a regular basis, as part of an on-going environmental audit.

Noranda Inc. has implemented a thorough system of environmental audits. Noranda's Senior Vice President, Environment, Mr. F. Frantisak says that environmental auditing should be a systematic and objective verification that industry standards, government regulations, and appropriate corporate procedures and guidelines are all being followed properly.

He suggests a broad interpretation of environmental auditing to include not just environmental issues but also health, industrial

hygiene, safety and emergency preparedness. Auditing requires analysis, testing, and confirmation of procedures and practices throughout the organization.

At Noranda, environmental auditing also evaluates the adequacy of the entire environmental management system including communications, training, risk assessment, and application of best management practices. The audit should include processes for correcting all deficiencies in a timely and cost-effective manner. It should be a mechanism for improving previous practices, engineering designs, and production processes. It should improve employee awareness of environmental issues. It should facilitate technology transfer among divisions within the organization.

As Mr. Frantisak says:

*Critical to the process are the preparation of an audit report, action plans and the follow-up activities. **The preparation and implementation of the action plan are essential for an effective audit Program.** This action plan closes the loop and ensures that all deficiencies and findings are corrected in a timely and cost-effective manner. It represents the due diligence element of the program.*

Notes

PART C

How Can You Do Better?

6 Developing a Management Strategy

A Higher Practice of Management

In talking with managers playing leading roles in companies that are seriously and significantly into the Management of Sustainable Development (M.S.D.), the observation is clear that the practice of management has evolved in these settings into what many would consider to be a "higher" form of executive life.

The time frame of reference is significantly longer-term than that of most North American managers. One chief executive is extremely forceful in his views that managers have to start taking a 30-year perspective every bit as seriously as a 30-day perspective.

M.S.D. requires an extremely open and interactive approach in relation to individuals and groups outside, as well as inside, the organization - a much more participative approach than is common today - especially in relation to issues that are in any way sensitive or contentious. Executives cannot hide behind the mahogany curtain, and play everything close to the vest, and still manage Sustainable Development successfully.

M.S.D. requires a genuine motivation toward constant improvement of all facets of a business operation. It requires problem-solving abilities that are infinitely more creative than was necessary in the past. Since most M.S.D. issues are so intensely

anxiety-provoking, conflict is an ever-present reality in the field, and managers therefore require highly developed conflict resolution skills.

The phrase, "transformational leadership," no matter how melodramatic it is now, or how trite it may become in future, has real descriptive validity in relation to managers who are initiating and innovating successfully in M.S.D. Such leaders are not only driving the evolution of a new management function, they are changing the entire practice of management. Moreover, they are spearheading the search for new business opportunities that will respond profitably to the challenges of the next 30 years, thereby leading their organizations successfully into the third millennium.

Integrating Economics and Environment

Much is being written, often in a highly normative and passionate manner, about the necessity of integrating the environment into economic decision making at all levels and in all segments of society. Before long, one becomes restless with the repetitiveness of these exhortations, and longs for some real action.

Successful M.S.D. teaches that the way to integrate environment and economy is to make a start and then continue until the integration is realized in all organizational functions. The integration must be represented in the substance of the corporate vision to which the chairman, members of the board, and the chief executive officer are committed. It must be part of the strategy for which senior executives are responsible.

Managers' objectives must be, at least in part, focused on M.S.D. issues. M.S.D. responsibilities should be included in the job descriptions of line managers as well as staff managers of environmental protection, health and safety, and public relations.

Appropriate resources need to be allocated in the budgeting process to do the work required to achieve goals and realize strategies relating to Sustainable Development.

Required skills, both technical and interpersonal, need to be developed within the organization's training and development programs. Innovative change programs need to be developed to capture the imagination and stimulate the willing contribution of all employees to M.S.D. activities and results. Also, results need to be measured and reviewed regularly, and accountabilities reinforced through the appropriate rewards and sanctions.

In other words, economics and environment will not be integrated until they co-function across all management systems. Integrating environment with economics in executive decision making alone, without the accompanying development of the above management systems, will result in impressive decisions, poor implementation, and zero results. Deciding upon "A," but measuring and rewarding "B," will produce a log of "B" results and many disappointments concerning "A".

Managing Integrated Performance

An alternative approach to developing integrated environment/economics management behaviour would, relative to the above model, start from the

“bottom” and work “up”. That is, it would start with goal definition, measurement, feedback and reinforcement and work its way up into goals, strategies and visions. This somewhat less grand approach is predicated upon the assumption that it is what we *inspect*, not what we *expect*, that we get out of life. It postulates that people perform best when they know what is expected of them, know how well they are doing, and know they will get recognized and rewarded for doing a particularly good job and will also be held accountable for doing an unacceptable job.

These principles apply to M.S.D. as much as to any of the other more established, conventional, main-line management functions. Without measurement, feedback and reinforcement, the road to M.S.D. - no matter how noble or necessary - will indeed become the road to hell that is paved with good intentions.

Case Studies

The case studies in Chapter 9 can help you and your organization in the development of your management strategy. Three reports, obtainable on request from NRTEE, may also be helpful:

- *Closing the Loop - The 3Rs of Waste Management*
- *Challenge Paper, Message from the Ontario Round Table on the Environment and Economy*
- *Sustainable Development - The Canadian Manufacturers' Association*

**Managing Sustainable Development
Exercise 1**

*Write a brief summary of how well your
organization deals with each of the following
aspects of
Strategic Responses*

1. Corporate Vision

Describe, in 100 words or less, the integration of economic development and environmental protection that your organization is committed to achieve.

2. Senior Executive Strategy

Each senior executive should write down, in point form, from one to five steps that he or she intends to take during the next two years to achieve the above integration.

3. Managerial Objectives

In the annual work planning and review session, every manager should define and commit to at least one Sustainable Development objective relating to the Sustainable Development strategy of his immediate superordinate. What are your managers' Sustainable Development objectives for next year?

4. Organizing the Function

Starting with the board of directors, and moving through all levels of management to first-line supervision, delineate the manner in which Sustainable Development is organized in your company.

5. *Job Definitions*

Define the job responsibilities of all managers with leadership roles in managing Sustainable Development in your firm.

6. *Budgets*

Develop a budget for the Sustainable Development function. How much will be spent? How much are the anticipated savings? Will additional revenue be earned from newly developed business opportunities in the field?

7. *Knowledge and Skills*

What new knowledge and additional skills are needed to make your Sustainable Development strategy work? What education or training do your people need to become fully competent in this new aspect of successful business?

8. *Programs and Projects*

Every manager is to develop a program, a special project, to involve his or her subordinates in the active realization of the corporate vision regarding Sustainable Development. These are to be presented to the chief executive officer, or senior management committee, who will select a realistic number of the more promising proposals for implementation during the next year.

9. *Annual Reviews*

Progress regarding regular Sustainable Development objectives are to be reviewed by manager and subordinate annually or, if necessary, more frequently. Special programs or projects are to be

reviewed equally frequently by whichever person or group initially approved them.

10. Reinforcement

Indicate clearly, and in advance, what positive and negative reinforcements will be administered, contingent upon varying degrees of outstanding, acceptable or unacceptable performance.

Managing Sustainable Development Exercise 2

*Write a brief summary of how well your
organization deals with each of the following
aspects of
Tactical Responses*

1. Measurement

What input and output measurements are you taking to monitor your organization's performance in Sustainable Development? What additional measurements would be helpful and feasible?

2. Feedback

Who receives the above information, in what form and how frequently?

3. Positive Reinforcement

What forms of recognition and reward, both social and financial, will be offered for satisfactory performance, and for performance well above expectation, in the realization of the corporate vision for Sustainable Development?

**Managing Sustainable Development
Exercise 3**

*Write a brief summary of how well your
organization deals with each of the following
aspects of*

Implementation Responses

- 1. Marketing***
- 2. Operations***
- 3. Accounting***
- 4. Finance***
- 5. Human Resources***
- 6. Public Relations***
- 7. Senior Executive Strategy***

7 Involving Your Employees

No doubt your employees are becoming more interested in Sustainable Development issues, both as employees and local residents, but also as people who must live in the future. Today's circumstances and this year's wages and profits are no longer their only focus. This chapter relates the views and experiences of several organizations that are seeking to involve their employees.

This is illustrated clearly in the brief outline of a study of the Canadian Labour Congress by EnviroFit Consulting. In spite of possible job losses resulting from higher production costs, employees are now supporting forward-looking corporate action to create a better future.

In this chapter we also discuss the role of employees in the Ontario government's development of a waste management program.

Most of the cases presented in Chapter 9 emphasize the importance of employee involvement.

Employees want to be involved in your corporate Sustainable Development plans. From the success stories, we see that employees can, and do, contribute many worthwhile ideas.

Furthermore, employee involvement is essential if your corporate plans are to be implemented. With Sustainable Development, the success of managerial decisions and corporate policies depends upon each employee's thoughtfulness, care, and everyday support.

A Changing Role for the Canadian Labour Congress (C.L.C.): A Case Study on Sustainable Development Decision Making

This study outlines the new role that labour is demanding in regard to Sustainable Development issues. No longer is labour prepared to leave these issues solely in management's hands. C.L.C.'s guidelines are presented as follows:

1. The primary objective of the decision-making process must be to protect the environment for both present and future generations. (The basis of Sustainable Development).
2. Environmental decisions should acknowledge economic impacts, but environmental considerations must supersede short-term economic considerations. At the same time, special care must be taken to protect the ability of any affected individuals to maintain employment opportunities and for communities to maintain economic bases. (The basis of sustainable prosperity).
3. There must be meaningful stakeholder involvement in all phases of the decision-making process. This must include government and industry funding so that all affected stakeholders can participate in a complete way in the entire process. It must also include full and timely access to all relevant information.
4. Decisions must be based on risk avoidance.

5. The process of decision making must be open and understandable to all those affected by it.
6. Those affected by decisions must be able to hold accountable those who make those decisions.
7. The decision-making process must be fair to all parties and must include the fair distribution of the common wealth contained within our global environment. (A basic objective of Sustainable Development).
8. Decisions must be responsive to specific circumstances in a responsible and flexible way. The process of decision making must be easily adapted to new situations.
9. Decision-making models must be consistent and effective.
10. Decisions must be enforceable.

Your employees may also have new concerns about their personal health as a result of working within your organization's physical environment. Scientific knowledge is advancing with regard to workplace dangers.

The dramatic discoveries of harmful relationships between asbestos and human health abruptly altered the workplace in many companies, as has the clearer understanding of radiation effects.

The harmful results of working with certain toxic chemicals are only gradually becoming apparent.

Questions have been raised about the long-term effects of constant work with some types of word processing equipment. The C.L.C. report warns that:

There is a need to develop new contract language that gives workers some measure of control over environmental issues in and surrounding their workplaces. This will become even more necessary as Sustainable Development issues become more focused on actual workplace activities.

From the perspective of human health, it may be possible for you to make some improvements in your organization's workplaces even today. In the context of employee concerns about these issues, a commitment by management to maintain a conscientious interest and an ongoing dialogue may add considerably to employee loyalty.

Employees and their unions want environmental education both for themselves and for management. The Canadian Labour Congress and its affiliate unions are now sponsoring conferences for this purpose. Many Federations have established environment committees to study these issues on an ongoing basis. New links are being established with environmental organizations such as Friends of the Earth and the Canadian Environmental Network.

The Development of a Waste Management Program Within the Government of Ontario

In October 1989, the Ontario Government announced that it would develop a waste management program within all its Ministries and agencies. Responsibility

for developing the program was given to the Ministry of Government Services (MGS). Management established clear objectives: waste reduction of 25% by 1992 and 50% by the year 2000. These targets have also been decreed as province-wide objectives for the non-governmental sector as well.

A report describing the planning process is summarized in Chapter 9, and is available in full from the National Round Table. The authors emphasize the importance of employee involvement:

MGS will have to gain the cooperation of more than 80,000 government employees in about 28 ministries and a large number of government agencies across the province, as well as landlords for the more than 9,000 buildings owned by the province and others leased from the private sector.

What was most important initially, however, was for MGS management to gain the support of the approximately 3,000 employees throughout MGS itself. Their level of participation was of particular concern since they would be expected not only to take part in the waste management program that was eventually introduced, but also to contribute their specialized knowledge and skills to planning and introducing the program.

What would be the best way to encourage the widespread interest and the level of commitment required? Obviously, there would have to be communications and education programs, but was there any other way to give MGS employees a more personal stake in the Ministry's plans?

In order to meet the recycling objectives set for 1992 and the year 2000, MGS management

realized it would have to devote major efforts to changing the attitudes of the vast majority of employees. Even in MGS itself, while top management - the minister, the deputy minister, and other senior executives - are committed to the waste management program, in general there is a need to increase the level of commitment among middle managers. This is of particular concern since middle management will have to play such a large part in motivating others.

Everyone agreed that communications were paramount and that a strong communications program should focus on both education and promotion. Employees throughout the government would have to be well-informed about the program's importance, its goals, and what would be expected of them. As well, there would have to be good feedback - employees should know if their efforts were producing the desired results. The main questions were: what kind of communications program would achieve this and were there other ways to build employee support?

To make it easier to win support of the employees and to help in planning communications, MGS decided at the outset that it would find out how employees felt about environmental issues. A consulting firm was hired to conduct a survey among "focus groups", which were made up of employees from different ministries. The consultants analyzed what disparate groups of employees thought about such questions as, what their particular employer should be doing about protecting the environment, what the government as a whole should be doing, and how an

environmental protection plan should be communicated.

To win employee support, MGS is also considering other means such as holding seminars to motivate middle management and inter-ministerial competitions.

A Formal Education Program

Many organizations have created a formal education program. In introducing the program created by Stora Forest Industries Ltd., Mr. Tom Hall, President and General Manager wrote a letter to all employees to indicate the purpose of the program, which he described as five-fold:

- 1. Sensitize all employees about the pollution threats to the earth's ecosystems.*
- 2. Assist employees in performing their own functions in an environmentally acceptable way.*
- 3. Answer **your** questions on environmental issues.*
- 4. Give **you** a voice in the formulation of Stora Forest Industries' environment policy.*
- 5. Assist all employees to know, understand, and speak knowledgeably on Stora Forest Industries' efforts both in the forest and in our mills.*

A planning committee was initially formed about nine months prior to the program being implemented. While Stora has a Training Department, it was decided that this subject involved so much technical content that the Training Department should not have primary responsibility. An outside consultant specializing in this kind of education was retained.

The planning committee wanted active involvement on the part of the employees, with discussions rather than lectures. In view of this, they chose to refer to the formal education as an "environmental awareness program" rather than a training program.

The content included the positions of management in regard to this subject, an overview of global issues, certain individual environmental actions, an overview of woodlands issues, an overview of mill issues, and then environmental policy workshops. A "fun test" was included as well as evaluation forms for participants.

Objectives for Employee Involvement

The following lists of points indicate objectives you may wish to pursue in regard to employee training for Sustainable Development. These are the skills that must be strengthened, and which must be directed to the particular problems that your organization faces.

In addition, employees should be able to transfer general principles to their daily work. The second list indicates personal responses for your employees, as starting points for their personal involvement.

Objectives for Training & Development
Exercise 1

Write a brief summary of how well your organization deals with each of the following:

- 1. Long-term Time Orientation (e.g. 30 years)*
- 2. Open, Participative Approach*
- 3. Motivation Toward Constant Improvement*
- 4. Creative Problem-Solving*
- 5. Conflict Resolution Skills*
- 6. Transformational Leadership*
- 7. Discovering and Developing New Business Opportunities*

Encouraging Personal Responses

Exercise 2

Write a brief summary of how well your organization deals with the following:

- 1. Stop doing.....*
- 2. Start doing.....*
- 3. Personal plan for future*
- 4. Join*
- 5. Volunteer*
- 6. Speak publicly*
- 7. Focus on your career*
- 8. Maintain commitment*

8 Where to Get Help

Getting Help from Trade and Professional Associations and from Governments

Recently, many trade and professional associations have been giving a lot of attention to Sustainable Development issues. Many have created special committees to discuss these issues, and to develop common Sustainable Development policies for their members. Consequently, you can save time and expense by working with such associations to improve your organization's Sustainable Development performance.

This chapter describes the helpful handbook developed by the Canadian Chamber of Commerce.

It summarizes the "Responsible Care Initiatives" of the Canadian Chemical Producers' Association.

It outlines the activities of the Lambton Industrial Society, an organization with representatives from seventeen companies in the Sarnia, Ontario, area who meet regularly to discuss their individual efforts to achieve community-wide objectives.

Finally, it discusses the help available from the Federal and Provincial governments.

The purpose of this chapter is to illustrate the kinds of association efforts that can help you at both the national and community level, and also within your particular industrial sector.

Achieving Environmental Excellence: A Handbook for Canadian Business

The Canadian Chamber of Commerce describes itself in the following words:

Founded in 1925, the Canadian Chamber of Commerce is the nation's largest and most influential business association. It is the only group that represents both small and large firms of every type from every region of Canada.

As Canada's premier business group, it is dedicated to the promotion and development of a strong and vital economy and a competitive business community. The Chamber monitors federal and international issues, solicits the views of the business community and communicates them to policymakers in Ottawa.

In 1987, the Canadian Chamber of Commerce formed a Task Force with the following objectives:

Promote greater private sector involvement in environmental issues.

Communicate the value of environmentally-sound business practices.

Devise a practical guide for responsible corporate behaviour for small and medium-sized businesses in their dealings with the environment.

The Chamber's handbook emphasizes the ongoing importance of Sustainable Development issues, including the market potential for new "environmentally sound" products. The handbook also outlines the ways in which six Canadian companies "have reaped the benefits of environmental action."

The handbook discusses the following ten steps to a clean and successful business:

- 1. Develop an environmental policy**
- 2. Appoint an environmental champion and supporting team**
- 3. Conduct an environmental performance review**
- 4. Prepare an environmental action plan**
- 5. Train and motivate your staff**
- 6. Allocate sufficient funds**
- 7. Conduct ongoing market research**
- 8. Communicate your endeavours**
- 9. Adopt a spirit of cooperation between interest groups**
- 10. Take a long-term view**

Finally the handbook reminds the reader of "common pitfalls":

- 1. Get your facts straight**
- 2. Be modest about your efforts**
- 3. Be open and honest**
- 4. Watch out for unintended consequences**
- 5. Be prepared for contradictory consumer behaviour**
- 6. Don't be satisfied with cosmetic changes**
- 7. Be flexible**

An appendix to the handbook presents a useful checklist for reviewing your organization's operations and determine its performance on environmental issues. Another appendix contains a list of organizations, government departments and publications that may be helpful.

Copies of this handbook may be obtained from:

The Canadian Chamber of Commerce

55 Metcalfe St.

Ottawa, Ont.

K1P 6N4

Telex: 053-3370

Fax: (613)238-7643

"Responsible Care Initiatives"® - The Canadian Chemical Producers Association

["Responsible Care: A Total Commitment" is a registered trademark of CCPA]

The Canadian Chemical Producers' Association (CCPA) is a national organization comprised of 73 companies of varying size. They have initiated a Sustainable Development program. In their words:

In the late 1970's, the CCPA's members began a chemical management policy process which has developed into what we now call Responsible Care. The initiatives began with a statement of policy on Responsible Care which set out the CCPA philosophy of chemical product management. The seven guiding principals stated that companies would:

Ensure that operations do not present an unacceptable risk to employees, customers, the public or the environment

Provide relevant information on the hazards of chemicals to customers, urging them to use and dispose of products in a safe manner, and make relevant information available to the public

Make responsible care an early and integral part of the planning process leading to new products, processes or plants

Increase emphasis on understanding

existing products and ensure that there is a high level of understanding of new products and their potential hazards throughout commercial development

Comply with all legal requirements affecting operations and products

Be responsive and sensitive to legitimate community concerns

Work actively with and assist governments and selected organizations to foster and encourage equitable and attainable standards.

The initiatives have been broadened significantly in the last decade. Adherence to Responsible Care is now a condition of membership. In addition to the guiding principles there are six codes of practice. Underlying all of the codes is the belief that people and the environment must be protected to the fullest extent possible, and that employees, community officials and the public have the right to know of the potential risks associated with our products and processes.

In addition to the codes of practice there are two supporting policies dealing with transportation emergencies and community awareness, a chemical referral centre which assists the public in finding out where to get non-emergency information about chemicals, and a public advisory panel made up of people active in health and environment matters at the community level.

The Association's "Responsible Care" program "promotes recovery, reuse, and recycling" in order to minimize waste.

The Association is now developing quantitative guidelines geared specifically to the production realities of their industry. These may include rates of waste generation and transportation incidents.

The Association's role in assisting its members to grapple with Sustainable Development issues serves as a useful example for other associations.

Are you making full use of your industry's association to help you meet your Sustainable Development challenges?

The Lambton Industrial Society

The Lambton Industrial Society was formed by companies in and around Sarnia, Ontario, who wished to co-operate in improving their community's environment.

A permanent office and staff co-ordinate the Society's research, technical, and education programs.

Representatives of the member companies, most of whom are in the petrochemical business, meet to share their corporate achievements in regard to environmental concerns.

The Society continuously monitors the St. Clair River to determine the success of its members in minimizing harmful effluents.

Reviewing the decade of the 1980's, the Society's President, Stewart Forbes noted that:

In compiling this "decade in review", we have been guided by our commitment to share the results of our local monitoring with area citizens, and by our commitment to comment ethically on local environment issues.

At the beginning of the decade, our Society had already been promoting improvements in the local environment for nearly 30 years. By the mid-1980's, co-operative efforts of industry and governments had already achieved dramatic improvements in river water and air quality.

Compared to the sixties, close to 99 per cent of containment loadings to the river have ceased. Industry is now working to eliminate the last one per cent.

Successes of the eighties have included the Lambton Industrials Meteorological Alert regulation (LIMA). Our Society and its members worked with government to reduce the ambient sulphur dioxide levels during adverse weather conditions. Because of this co-operative effort, only twice was the government daily objective of 0.1 p.p.m. sulphur dioxide exceeded between 1982 and 1990. This compares to nine times in 1978 alone.

Progress on eliminating spills to the St. Clair River has not been as rapid as expected. Nevertheless, as the decade closed, river water below the industrial area routinely met tap water chemical standards. Serious spills to the river have been reduced from an average of nearly three per year to less than one per year.

We hope that the data presented will leave the reader with a feeling that there are real challenges

to be overcome locally, but that these are not insurmountable.

The story of the Lambton Industrial Society illustrates the role your organization can play in the particular community where you are located.

Do you have community objectives in regard to Sustainable Development issues?

Do you have community-wide organizations that help businesses to achieve these objectives?

What can you do within your community?

Getting Help from Governments

The Federal Government and each Provincial Government have many programs to assist organizations with Sustainable Development issues.

Some of these programs provide advice in regard to particular matters. Such advice is often in the form of publications. In addition, you should be able to find individuals within the government or its agencies who can assist you with advice geared to your specific concerns.

Of special interest are the wide range of financial assistance programs. These include financial assistance for various kinds of waste treatment and the development and implementation of new technologies.

Notes

9 Success Stories

The following brief case studies illustrate many of the principles discussed in earlier chapters. Full versions of the case studies are obtainable from the National Round Table or directly from the authors.

Bell Canada¹

In 1990, Bell Canada developed a major new Sustainable Development program. The initial motivation for this was the federal government's new legislation, the Canadian Environmental Protection Act (CEPA). Prior to this time, Bell Canada dealt with Sustainable Development issues on an ad hoc basis, often through the establishment of committees.

In response to CEPA, Bell Canada launched a company-wide task force to investigate and report on all Sustainable Development issues connected with the organization's activities. This CEPA Task Force ended its work in 1989 but members of the Task Force felt that there was much more that could be done by Bell Canada. Having complied with the new federal law, "they believed that it would be even better to be 'out front' of the issue, leading the way and developing corporate commercial opportunities."

In 1990, a new Task Force undertook to develop a strategic plan for managing the environment at Bell Canada. They "sold it to the board of directors as a way to turn a potential problem into a corporate opportunity." This new Task Force sought input from

employees throughout the organization.

The strategic plan consists of five elements:

A statement of commitment

Eight policies

Tactical Plans

Organization

Initiatives.

The Statement of Commitment

Bell Canada's strategic plan begins with the following statement of commitment.

Bell Canada is committed to leadership, innovation and excellence in conducting its business and promoting its services in a manner that seeks to protect and respect people and their environment:

The Eight Policies

From this statement of commitment flow the eight policies adopted by the board. These policies are:

To develop and market telecommunications services and products that provide our customers with innovative solutions to environmental problems.

To develop and apply innovative solutions in order to reduce the environmental impact of our operations.

To encourage reduction, reuse, and recycling in all our activities.

Our concern for quality of service will include consideration for the environment.

To purchase products that are environmentally friendly from suppliers who respect the environment.

To encourage employees to become involved in environmental programs.

To participate with governments in our operating territory to advance environmental protection.

To report regularly to our shareholders, employees, and the public, on our environmental status and performance.

Tactical Plans

The third element of the Bell program was cast as "tactical plans". These consisted of much more precise plans in six areas of activity to lend support to the policies. The six areas included:

Emergency Procedures
Toxic and Dangerous Substances
Waste and Energy Management
Communications
Network Infrastructure
Products and Services

Organizational Structure and Initiatives

The next element of the Bell Canada plan for environmental management was that of organizational structure. The concept of a separate "VP for the Environment" was rejected. Instead there is a Director of the Environment who reports to the General Manager (Acquisitions and Quality Assurance) who in turn works under the Vice-President of Logistics.

The Director's team consists of two persons in Toronto and three in Montreal. They coordinate and oversee the implementation of the organization's environmental plan.

Also anchoring the organizational structure is an Environmental Working Committee consisting of permanent members from each of the six areas identified in the tactical plan (e.g. emergency procedures; toxics, etc.)

Dow Chemical Canada ²

In 1990, Dow Canada was in the process of transforming its environmental protection initiatives into a more systematic approach to managing Sustainable Development in all aspects of its business, from policy and strategy to the identification and development of new, future-oriented business opportunities.

The origins of this action can be found in a series of plant leakages and spills that resulted in extremely critical media coverage. The president and CEO stated "we have lost the trust and confidence of the public." Beginning in 1986, Dow began a series of

initiatives that led up to its current systematic approach:

The Continuous Improvement Process (CIP)

Dow had always pursued the ideal of continuous improvement. However, in Sustainable Development issues this required certain changes. A move to team decision-making to solve environmental problems took place over 1985-86, requiring a new management structure and style that would support and encourage the participative process.

A guiding principle of continuous improvement is respect for people. Aspects of this respect are: the recognition that individual participation is the key to team success; trust; the opportunity for self-fulfilment.

Continuous improvement is an empowering dynamic, because it gives people the right and the responsibility to provide input. In order to be successful, it must both depend upon and encourage individual involvement and commitment.

Core Values

Long-term profit growth is essential to ensure the prosperity and well-being of Dow employees, stockholders and customers. How we achieve this objective is as important as the objective itself. Fundamental to our success are the core values we believe in and practice.

Employees are the source of Dow's success. They are treated with respect, teamwork is promoted, and personal freedom and growth is encouraged.

Sustainable Development

Excellence in performance is sought and rewarded. **Customers** receive the strongest possible commitment to meet their needs with high-quality products and superior service.

Products are based on continuing excellence and innovation in chemistry-related sciences and technology.

Conduct demonstrates a deep concern for ethics, citizenship, safety, health and the environment.

The Initiatives Team

The Initiatives Team put forward a series of recommendations by way of initiatives intended to restore public confidence. Areas covered by the initiatives included: operations; employee communications; community, government and media relations; and issues management.

The fundamental objective of each initiative was to establish Dow Canada as an organization taking credible and responsible action on environmental matters.

Realizing that the organization would be involved more and more with important audiences such as governments, sectors of the public and the media, the final initiative, issues management, proposed that a public policy and issues team be established to develop policy positions and actions on a broad range of public issues, not just the environment.

The Chemical Industry Response

The chemical industry realized it had to address the issue of public credibility. In 1985 the CCPA had

asked all member companies to sign a statement of Responsible Care, pledging their commitment to take *every practical precaution toward ensuring that our products do not represent an unaccountable risk to our employees, customers, the public or the environment.* The CCPA now undertook to develop Responsible Care into a program of product stewardship and public accountability at the industry level.

Public Policy and Issues Team (PP&IT)

The seven-member multidisciplinary Public Policies and Issues Team was formed in December 1986 with a mandate to provide direction and recommendations on policies, positions and strategies aimed at managing the effect of important issues on Dow Canada and at identifying ways to help resolve emerging issues.

In 1987 the PP&IT asked 160 managers to identify the public issues that they believed could potentially be of concern to Dow Canada. A number of initiatives followed, including the establishment of priorities in accordance with the outcome of the survey, and the formation of issue management teams in the area of environmental protection.

A vital component in Dow's partnership efforts is to involve the public in its decision-making process. In Sarnia, the organization formed an advisory panel to solicit and bring forward the community's concerns about a proposal to build an incinerator to upgrade the on-site waste management program, and to seek suggestions about how the organization should communicate with the public about the project. Since

then, the organization has entered into an Environmental Impact Assessment to explore all of its waste management options, and it continues to solicit public input.

In the past five years, Dow Canada has undergone a transformative journey that has taken it a long way from the detached stance of earlier days, but it still struggles with the issues of credibility and lack of public confidence that started the process of change. There are, however, signs that progress is being made.

The Department of Energy, Mines and Resources, Metals Recycling, Trade Issues, Green Issues and Organizational Change
--

³

By the late 1980s, environmental issues had become an integral part of the work of the Department of Energy, Mines and Resources (EMR). Over the decade, the department had steadily increased the amount of resources, both human and financial, focused on environmental concerns. More recently, senior managers at EMR - like their colleagues in many other federal agencies - had discerned the change in public attitude on environmental matters and the increasing political commitment of the government to respond to these concerns.

In early 1990, as the Department of the Environment (DOE) proceeded with the development of a new environmental blueprint, or Green Plan, for Canada, EMR followed suit and launched several environmental initiatives of its own. One of these initiatives was to monitor DOE's new policy proposals and provide an assessment of their likely impact on

the energy and minerals industries. Another was an exercise in which every sector of the department was asked to generate proposals for the government's Sustainable Development policy.

In the past, metals recycling was seen largely as an international trade issue, with possible trade restrictions on the cross-border shipment of metals to be recycled. Today, metals recycling is closely tied to issues surrounding Sustainable Development. *Recycling of metals reduces the need for virgin ores, reduces energy requirements, and results in significantly less pollution of air, water and land.* For example, one ton of scrap steel produces almost one ton of new steel, while primary steel production consumes three tons of iron ore, coal and limestone. Moreover, metals can be remelted and reused any number of times without adversely affecting their mechanical properties.

The central questions were:

What type of people should be brought into the planning process? Would it be better if they had a strong technical background in the metals and minerals sector like the existing staff of the Branch or should they have a different mix of expertise, outlooks and contacts?

Should additional staff working on recycling be concentrated in a single group as they currently are now in the Specialty Metals and Minerals Division or should they be dispersed in order to encourage the whole organization to "think green"?

What type of organization would be most effective in encouraging the public to identify with the issue of minerals and metals recycling?

What structures should be established to consult with industry while maintaining the ability to act independently?

How should relations with other departments be managed? Should this department build an organization that would be focused exclusively on metals recycling or should it be "turned" into broader government policy issues?

Considering that it could take at least six months before any significant staffing could be completed, what priorities seemed reasonable with the current level of resources?

The Role of "Green" Products: The Case of Pollution Probe and Loblaws
--

4

There has been nothing quite as controversial in the field of Sustainable Development as Pollution Probe's endorsement of certain Loblaws' Green Line products. Two Pollution Probe staff quit over the issue. Other Environment organizations attacked Pollution Probe for taking money for the endorsements.

Did Pollution Probe's endorsement of Loblaws' grocery store's green line products help promote Sustainable Development?

Do green products contribute to achieving

Sustainable Development?

Was the Executive Director a leader, or the "fall guy" for relentlessly driving his organization into green products promotion?

As Executive Director of Pollution Probe, Colin Isaacs expanded the areas of green product endorsement. He had a vision that organizations had a responsibility for providing consumer products that were environmentally-sound and that would contribute to Sustainable Development.

He also believed that in cash-strapped Canada, where charities, particularly environmental, fared poorly compared to their U.S. counterparts, Canadian organizations through endorsements could support environmental organizations financially.

Pollution Probe endorsed seven Loblaws' green products:

- Organic fertilizer
- Natural topsoil dressing
- Re-refined oil
- Phosphate-free laundry detergent
- Phosphate-free dishwashing soap
- Soil enhancer made from wood pulp waste
- Dioxin-free disposable paper diapers
- Dioxin-free feminine sanitary napkins

In return, Loblaws promised Pollution Probe up to \$150,000, based on sales. Pollution Probe eventually received \$75,000. This is a small amount, given that according to published reports, Loblaws generated many millions of dollars in new sales on its green products.

Colin Isaacs conducted much of the negotiations with Loblaws in private, away from the eyes and ears of most of the Pollution Probe staff and Board. This was in deference to Loblaws' concern that in a competitive world, other companies might learn of Loblaws' efforts and beat it to the market place with their own greenline.

Isaacs was driven by the desire to involve organizations in the greening of Canada. He felt strongly that it was time to broaden environmental group efforts beyond just fighting pollution, and to actually work on solutions with industry. Loblaws had a desire to help and, at the same time, increase its market share.

Isaacs felt that the quickest way to bring about environmental change was to get organizations to buy in. Industry had been a formidable road-block to change. Isaacs felt that more environmental group stone-throwing from the street was not going to change that. It was time to use a carrot, not just the stick.

Notwithstanding Isaacs' strong vision and broad support for endorsements, the endorsements generated a tremendous negative backlash both inside and outside Pollution Probe. The negative reaction was both against an environmental group endorsing products, and against environmental groups like Pollution Probe and Friends of the Earth accepting money for endorsement.

The verdict, in spite of the controversy and turmoil generated by the decision, is that, by and large, Pollution Probe made the right choice and that its promotion of truly environmentally-sound products significantly contributed to Sustainable Development.

What we have learned from this case study is the following:

- **No secrecy**
- **Choose genuine environmentally sound products**
- **Provide independent study results to the public on the environmental worthiness of the "Green" Product**
- **Environment groups should take no money for endorsements**
- **Selling environmentally-friendly products should not substitute for other corporate responsibilities**
- **Beware of bogus "Green" Products**
- **Streamline and control Green Product labelling**
- **There is a place for some environment groups to identify environmentally-sound products.**

Ontario Government Waste Management Program

In 1989, the province of Ontario was recycling less than 5% of its garbage, and had incinerated or dumped 8.2 million tonnes in the previous year. Even so, Ontario was considered a leader in North America in recycling. A residential blue box program to separate recyclable materials had been an overwhelming success in communities throughout the province, with more than 2.2 million households taking part.

Residents of Ontario had demonstrated their

concern for the environment and their willingness to help protect it. The Government of Ontario wanted to build on this success.

In March 1989, the Government announced it would move on several fronts to reduce Ontario's garbage by 25% by 1992 and 50% by the year 2000. The "war on waste" would involve all sections of society: households, communities, industry, business, and the three levels of government.

With the aim of providing leadership by example, the Ontario Government in October 1989 announced a comprehensive waste management program within the government itself. Ontario was the first province to introduce such a program.

The Government assigned responsibility to the Ministry of Government Services (MGS). MGS had to gain the cooperation of more than 80,000 government employees in about 28 ministries and a large number of government agencies across the province, as well as landlords for the more than 9,000 buildings owned by the province and others leased from the private sector.

What was most important initially, however, was for MGS management to gain the support of the approximately 3,000 employees throughout MGS itself.

Their level of participation was of particular concern since they would be expected not only to take part in the waste management program that was eventually introduced, but also to contribute their specialized knowledge and skills to planning and introducing the program.

What would be the best way to encourage the widespread interest and the level of commitment required? Obviously, there would have to be

communications and education programs, but was there any other way to give MGS employees a more personal stake in the Ministry's plans?

Whichever it chose to do, MGS would first have to identify the ways the "3Rs" - reduction, reuse and recycling - could be applied to the government workplace. It identified 58. These included reduction initiatives such as two-sided photocopying, composting cafeteria waste, and using electronic mail; recycling fine paper, newspapers, bottles and cans; and purchasing supplies with recycled content.

Should the program start with recycling, reduction or reuse, or all three?

To help it decide where to focus its efforts, MGS commissioned audits of the kind and amount of recyclable waste generated in the various types of government facilities across the province - office buildings, psychiatric hospitals, agricultural colleges, correctional centres, and laboratories, for example. The audits, which were conducted at a group of typical facilities, also identified products purchased by the Government that could be replaced with recyclable products or those with recycled content.

A strong argument in favour of starting with recycling was that it would produce significant results quickly - in paper waste alone a reduction of an estimated 21,000 tonnes a year. Equally important, many MGS employees recycled at home and were pressing for recycling on the job. Recycling would

give them what they wanted and give everyone a sense of being a part of an important environmental initiative.

In order to meet the recycling objectives set for 1992 and the year 2000, MGS management realized it would have to devote major efforts to changing the attitudes of the vast majority of employees. Even in MGS itself, while top management - the minister, the deputy minister, and other senior executives - are committed to the waste management program, in general there is a need to increase the level of commitment among middle managers. This is of particular concern since middle management will have to play such a large part in motivating others.

Everyone agreed that communications were paramount and that a strong communications program should focus on both education and promotion. Employees throughout the government would have to be well-informed about the program's importance, its goals, and what would be expected of them. As well, there would have to be good feedback - employees should know if their efforts were producing the desired results. *The main questions were: What kind of communications program would achieve this and were there other ways to build employee support?*

To win the support of MGS employees, the Deputy Minister decided at the outset to make sure that the entire Ministry had an opportunity to make a meaningful contribution to the program's direction. Involving representatives from all branches of the ministry would facilitate keeping everyone informed, and give employees the sense of participation necessary to foster cooperation, the deputy minister believed. MGS's first move therefore was to form a

Steering Committee made up of senior executives from all major areas of the Ministry - property management, purchasing, land, systems, communications, policy and administration.

The Steering Committee prioritized its 58 initiatives, putting recycling and procurement policy at the top. The other two Rs, reduction and reuse, would be introduced later.

To make it easier to win support of the employees and to help in planning communications, MGS decided at the outset that it would find out how employees felt about environmental issues. A consulting firm was hired to conduct a survey among "focus groups", which were made up of employees from different ministries.

The consultants analyzed what disparate groups of employees thought about such questions as: what their particular employer should be doing about protecting the environment; what the government as a whole should be doing; and how an environmental protection plan should be communicated.

To win employee support, MGS is also considering other means, such as holding seminars to motivate middle management and interministerial competitions.

To win the support of landlords, MGS met with them individually to convince them of the benefits they would gain from taking part in the program. Waste management is now being written into all new leases. In the regions, property managers met with the landlords. In Toronto, there is a special group that does so. Their main argument is cost-savings. A reduction in total waste leads to a reduction in dumpster costs. There may be a charge for picking up

recycled materials but, in general recyclers do not charge for pickup. MGS also argues that if there are higher janitorial costs, these are offset by fees for recycled materials.

The Ontario Blue Box Program and the Soft Drink Industry

Consumer preference for non-refillable containers grew in Ontario during the decade of the 1980s. Environmental groups urged the provincial government to introduce deposits on non-refillable containers. At the same time, recognition that Ontario was beginning to face a serious solid waste problem was also dawning.

The object of the decision-making process was to develop a series of consensus building steps. Failure at any stage would result in the failure of the process.

The stages of consensus building were as follows:

1. Agreement on a common approach amongst bottlers in the respective soft drink systems;
2. Agreement between the bottling companies and their franchise houses; [There are practices and long-standing contracts between bottling companies that provided a framework for agreement.]
3. Agreement within the industry as a whole;
4. Agreement between the industry and its container manufacturers and suppliers to manage

returned materials; [The Ontario Soft Drink Association was the vehicle for this stage.]

5. Agreement within a multi-stakeholder group;

6. Agreement on a common approach with the Government of Ontario; [The Ministry of the Environment developed funding and regulatory procedures.]

7. Municipalities as managers of solid waste had to agree on funding and collection systems. [The soft drink industry created a non-profit organization (OMMRI) to deliver funding and assist municipalities in designing programs.]

The solution was to propose the Blue Box curb-side recycling program.

Its primary appeal was the cost sharing to establish the capital infrastructure whereby each party could leverage their investment into a much larger program.

The second more subtle advantage was that, by investing money, each of the participants also made a real commitment: industry to ensure that all the materials collected were recycled; municipalities to introduce comprehensive and effective collection programs; and the province to support the initial operating costs.

The fact that so many groups had investments of money and prestige (including environmental groups) required both intensive internal review of decisions and elaborate intergroup consensus building.

The Royal Bank of Canada

In February 1990, the Public Policy Committee of the Royal Bank's Board of Directors approved a Policy on the Environment.

The initiation of that policy began with the Royal's Chairman and Chief Executive officer, Allan Taylor, who asked early in 1989 the following questions:

Do we have a policy on the environment?

If we do, what is it?

If we don't, should we have one?

What should it be?

Important issues include:

Impact on borrower's cash flow

As government environmental standards are raised and as enforcement is made tougher, borrowing companies may be forced to incur additional unanticipated costs such as fines, cleanup costs, increased waste-disposal costs, and the installation of new pollution control/abatement equipment.

These could seriously affect their cash flows and consequently their ability to service bank debt. If the borrower has violated regulations or is ordered to undertake extensive clean-up, the viability of the business could even be threatened.

Impact on value of security

If the lender's security is dependent upon potential title to real property, the value of the security can

be severely damaged or even destroyed by the presence on the site of hazardous wastes or residues. Often a sale of premises may not be permitted until clean-up of the contamination, and cleanup costs may well exceed the value of the property.

Liability for cleanup costs generally attaches to whoever is in "care, control or management" of the property regardless of when the contamination occurred.

Direct liability of lender and/or receiver

If the lender takes over control of the business in the course of enforcing its security interest, the lender could end up assuming liability many times greater than either the loaned amount or the original estimated value of the security.

The liability could take the form of responsibility for clean-up costs in relation to preexisting contamination (or for the consequences of any *new* release of contaminants), or for damages in common law civil liability suits brought by third parties.

Banks are, of course, seen as the ideal "deep pocket" targets for such suits. Moreover, if the lender is in a position of "care, control and management" of a current source of contamination which is in violation of governmental regulations, officers and directors of the lender could also become subject to criminal penalties including fines and/or imprisonment.

The Bank's role remains that of managing and controlling risks - not avoiding them.

Before loans are committed, account managers are now routinely expected to explore with borrowers such issues as:

Environmental regulations

The generation of hazardous wastes

The ability to pay for potential clean-ups and third-party damages

Whether referring to the Royal's overall policy on the environment, or to the credit aspects of that policy, the same conclusion results. The commitment of the senior executive was important to the process. The rest was unleashing the forces for change. In many ways the Bank found that it was legitimizing disparate efforts within the organization to effect positive change.

Shell Canada Limited

In June 1989 the President expressed a desire to hold an "Environmental issues" day with the Senior Management Functions (S.M.F.) at which they could be brought up to date on the major environmental topics which everywhere seemed to be at the top of the political agenda.

For this purpose a task force of staff was assembled. This group was comprised of two individuals from Health, Safety and Environment (H.S.E.); two from the Corporate Strategy Development group; and one each from Public Affairs and Research and Technology.

After considerable discussion and consultation the following three issues were identified as warranting further development:

- ***Waste management;***
- ***The environmental impacts of fossil fuel combustion;***
- ***Sustainable Development.***

The broader topics of climate change and environmental leadership were thought to be best treated under each of the relevant more specific headings.

As a first step, short (8-10 page) brieflets were developed by the task force on each issue, together with a slightly longer overview of the environmental scene. These four documents and some supporting material were sent to each member of the S.M.F. for their background familiarization.

In order to stimulate discussion at the meeting itself and to promote buy-in within the S.M.F., it was also decided to ask three members of the S.M.F. to each adopt one of the issues.

The related responsibilities were to first present a summary of the material at the meeting and then to act as discussion leader. For this purpose, corresponding presentation packages were assembled with the active input from the respective S.M.F. members.

The task force began this second stage of its work by conducting additional background investigations into the origins and various interpretations of Sustainable Development.

The focus was on seeing how other groups in Canada had interpreted it, how other companies had reshaped their environmental policies and how other

nations such as the Netherlands had melded Sustainable Development into their specific plans and programs.

On this basis a draft of a comprehensive statement of principles was assembled which was in the same spirit as the draft policy adopted by the S.M.F.

It was comprised of the following components:

Definition - Brundtland Commission definition accepted;

Interpretation - Several statements summarizing what the organization understood by Sustainable Development and how that related to the definition;

General Principles - Statements of general commitment by the organization concerning those aspects of Sustainable Development most relevant to its activities;

Specific Applications - The expressions of the General Principles as they pertained to first party activities (Shell Canada and contractor direct impacts on the environment); second party activities (activities of Shell Canada's customers); and third party activities (those not related to Shell Canada's business but in which it becomes involved through its larger societal role i.e. funding of external organizations).

In addition a Sustainable Development checklist was developed to enable projects and activities to be audited with respect to their sustainability. Over this period members of the task force took the opportunity to promote the concept of Sustainable Development in their normal dealings with the business units.

At the outset it was decided that Shell Canada's Sustainable Development principles should be compatible with those of the N.R.T.E.E.

The task then became to draft the content of those components so as to be consistent with both the national intent and Shell Canada's own position. The task force also prepared draft guidelines for Sustainable Development planning and for specific targets and undertakings.

Input from across the organization was obtained on these documents both through informal contacts and more structured channels.

As part of Shell Canada's current restructuring efforts, there has been a realignment of most environmental staff into the business units. As a part of this process, specific individuals have been assigned the responsibility for ensuring that Sustainable Development is indeed integrated into the Organization's decisionmaking procedures and that the corporate commitment is acted upon. Communication packages and presentations for both in-house and external use are being developed.

As a summary to this case study it is possible to draw several key conclusions.

Firstly, it is critical to have strong and continuing executive support for such an initiative.

Secondly, it is very useful to involve various corporate staff groups in the planning and coordination of the necessary steps while at the same time maintaining the appropriate liaison and interaction with the business units. All individuals involved must also be personally committed to the project and be in tune with changes going on outside the organization.

Thirdly, key changes in internal and external relationships are necessary to arrive at consultative and cooperative decisions on Sustainable Development.

Finally, the challenge will be to ensure that Sustainable Development policies and principles are integrated into the organization's day-today business practices and do not become just the latest fad.

<p>Shell Canada: Closing the Circle at Oakville - A Lifecycle Project</p>
--

Shell has made Sustainable Development planning, implementation and goal attainment a priority for all managers and senior executives. In addition to these operations efforts, a major internal communications initiative has been launched with the objective of making Sustainable Development a widely-recognized key component of corporate culture.

Short of the ultimate problem of ensuring the environmental acceptability of all petroleum products, daily operations present a number of challenges. These include:

- ***Preventing leaks from any of thousands of service stations,***
- ***Environmental impacts of resource extraction:***
 - well site construction and operations,***
 - gas plant operations and emissions,***
 - pipelines,***
- ***Environmental impacts of refineries, chemical plants and marketing and distribution terminals,***

- ***Energy conservation and waste reduction/elimination.***

Progress must be made in all these areas simultaneously - likely at significant cost and in a time of uncertain price forecasts and product margins.

Moreover, when operations sites have come to the end of their working lives, they must be returned to conditions which are suitable for the next intended uses. The public will accept nothing less, and there is a growing list of precedents for calling companies back to former operations sites to do very expensive remedial clean-up work. *There is, in this trend, a clear message of "cradle-to-grave" or "lifecycle" responsibility on the part of the industry.*

Shell's commitment to reclaim the Oakville refinery site predates the corporate policy on Sustainable Development by more than six years. But the parameters of the project have expanded with the evolution of knowledge in the field of environmental protection.

The attainment of that goal has cost more than \$12 million to date. It should also be said that achieving this goal has taken twice as long as it did to design, build and commission the plant in the first place. Not surprisingly, costs of decommissioning have reached multiples of the original project estimates. However, management's original commitment has remained constant throughout the reclamation process.

The first major management challenge presented by the clean-up was the complete lack of regulatory criteria answering the essential question, "How clean is clean?"

To overcome this situation, Shell proposed that it undertake the research required to develop guidelines and submit results to the government for review, amendments as appropriate, and approval.

What emerged from the Oakville experience was a process in which Shell established an overall objective and then undertook initial planning, reclamation and testing work, all consistent with the initial objective. Consultants worked with Shell and provided valuable assistance in developing scientific standards in such areas as environmental criteria and sampling procedures.

Le Groupe SNC

5

Le Groupe SNC is a public organization headquartered in Montreal. For the past several years, it has ranked among the foremost Canadian engineering firms. Engineering and construction account for approximately 50% of its annual sales of roughly \$400 million, the other half chiefly generated by the manufacture of defence products. The Groupe SNC has approximately 4,000 employees, 1,800 of whom work in the fields of engineering and construction for its subsidiary - SNC Inc. - the exclusive focus of the following discussion.

Anticipating the growing opportunity within this sector, the Groupe SNC recently conducted a major overhaul of its focus and organization, making the environment a major sector in its future development.

Another aspect of SNC's environmental activities has been its efforts since 1985 to act as the designer, financier and operator of waste or toxic substance conversion or salvage facilities.

The Groupe SNC's environmental activities are also distinctive by the R&D invested in new household and industrial waste salvage and conversion technologies for commercial marketing.

The Groupe SNC's emphasis on environmental R&D owes to the perception of this field's rapid technological development and numerous commercial opportunities. Moreover, unlike other fields such as metallurgy or industrial procedures, the cost of developing new environmental technologies is considered more affordable. The technological development projects undertaken to date have been mounted with the financial assistance to R&D provided through various government programs.

The change process, triggered by new management, first consisted of mandating a corporate task force to produce a strategic plan, including:

- A review of market opportunities;
- An analysis of the Groupe SNC's strengths and weaknesses;
- Identification of potential growth sectors;
- A statement of objectives;
- Development of a strategy, as well as means and a schedule for implementation.

The objective of the strategy developed was to increase SNC's environmental activity over a two-to three-year period, until it generated approximately 25% of the engineering-construction sector's total sales.

Thus, the new Environment Division is now

organized into departments or modules covering four sectors of activity: consultation, industrial treatment, hazardous waste, and energy and new technologies. These modules are mandated to promote application of the new technologies developed or acquired by SNC and to enter partnerships with other operators to establish operational units integrated within SNC or in which SNC holds shares.

The strategic focus on operating rather than engineering services implies a new type of organization and management. At the organizational level, corporate satellite units will have to be created to operate the procedures or sites. These satellite structures will be independent profit centres, managed in a more hierarchical manner than an engineering services organization, with a short-term philosophy and close relations with clientele.

The Environment Division will also be involved in matrix-like line relations with regional subsidiaries in Quebec, Ontario, the United States and elsewhere, for coordination purposes. These are major changes for managers and professional engineers accustomed to selling a service and working within a management framework determined by the project.

Ontario Hydro

Ontario Hydro is a decentralized organization. In each area of its business an environmental unit exists which plans, advises, monitors, and reports on environmental performance. The principal environmental units are associated with:

Production - The Environmental Protection

Department provides technical service to nuclear and fossil-fuelled generating stations. Each station has its own environmental unit to manage environmental work.

Design and Construction - Environmental Studies and Assessments Department and Land Use and Environmental Planning Department initiate conceptual studies, carry out environmental assessments, obtain environmental permits and approvals for facilities under construction, fund and advise on environmental work associated with new or refurbished generation and transmission facilities.

Regions - The Safety and Environment Department provides policy, strategic planning, audits, assessments, external representation and technical services to the wholesale, retail and customer energy service business areas. Each Region now has a Safety and Environment officer to coordinate certain programs and provide advice and service to line functions.

Corporate Planning - Environment Division provides corporate environmental leadership, identifies emerging issues, provides a consulting service to senior management and speaks for the organization on environmental issues. The Chemical Research Department initiates unique environmental studies, provides a focus for utility research and conducts long-term evaluations in support of operations.

Supply and Services - Waste Management Unit is responsible for off-site management of non-radioactive waste for the organization.

Corporate Relations - Community Studies and Assessment Department undertakes socioeconomic studies as part of project environmental assessments.

Law - Provides legal advice on environmental regulations and legal counsel for environment hearings.

In addition to the environmental expertise in each line of the organization, Ontario Hydro has a number of internal environmental committees. These have been established to facilitate decisionmaking for environmental issues that cross lines of responsibility or that are of corporate importance. They include:

Environmental Policy Committee - A vice-president-level committee whose goal is:

To have an integrated set of corporate policies, objectives, procedures, forecasts and strategies with respect to the impact of Ontario Hydro's activities on the "natural environment" and to make decisions on interpretation of policies with respect to the impact of Ontario Hydro's activities on the natural environment so as to contribute to the corporate goal.

Environment Technical Committee - A director-level committee established to identify emerging environmental issues and to provide the Environmental Policy Committee with technical recommendations and coordination services in order to assist it in achieving its goal.

Other issue-specific committees - such as the Acid Gas Management Committee are established as required.

There is also an external environmental committee which provides environmental advice to the organization:

Environmental Advisory Panel - is comprised of nine external resource people who have broad environmental expertise and interests and two Ontario Hydro Vice-Presidents. Their mandate is to provide an additional source of advice to the Senior Management Committee on:

- *Significant environmental effects of major projects,*
- *Environmental policies,*
- *Effects of operating practices,*
- *Environmental issues of public significance,*
- *Other items at the discretion of the Panel.*

In 1988, as a result of the declining reliability of performance of Lakeview Thermal Generating Station, a decision had to be made as to whether to repair or replace the station. Lakeview is a coal-fired, peaking station located on Lake Ontario in Mississauga.

There were a number of opportunities for environmental factors to be incorporated in the decision-making:

- The Investigation Teams could consider environmental implications of their task as well as environmental regulations which must be met,
- The president, or members of the Executive Committee, could question the environmental implications of the draft Board Memo,
- The Board of Directors could ask environmental questions,

- The Implementation Team could challenge the environmental implications of the design specifications and use the ETC for advice on design changes.

In the case of the Lakeview Rehabilitation project, this process was used to improve environmental performance beyond regulatory requirements - with the inclusion of flue gas conditioning equipment and upgrading precipitator performance to give 20% opacity under normal operating conditions.

It should be noted that in addition to the above opportunities for incorporating environmental considerations into decisionmaking, all draft Board memoranda must now be "signed-off" by a number of stakeholders in the organization, including: Environment Division, Health & Safety Division, and Corporate Relations. These "sign-offs", including all comments, are then reviewed by the Executive Committee at the time that Board memoranda are being discussed, in advance of a Board meeting. This is a further opportunity for environmental questions to be asked.

Proctor & Gamble Inc: Downy Enviro-Pak

⁶

Environmental Concern

In 1989 the environment had become a significant issue to Canadian consumers. David Nichols of Loblaws gained celebrity status when he launched an innovative line of "Green" products, which were claimed to be "environmentally friendly". In Ontario

alone, Loblaws sold more than \$5 million of Green products. It was clear that these products had a wide appeal. Business magazines were running articles concerning environmental management on a regular basis. One environmental concern, which was the primary focus of several lobby groups and which could be most readily addressed by consumers, was solid waste.

Landfill sites in urban communities like Toronto were projected to be full by the mid-90s. This posed a serious problem for government officials in determining locations for new sites, since "NIMBY" (not in my back yard) protests by the residents close to proposed landfill locations were increasingly effective.

People were becoming aware of how much solid waste was being buried in the ground. As a result, some communities had started up "Blue Box" curbside recycling programs which were run by the government and partially funded by industry. Household residents stored particular types of waste, such as newspapers, softdrink bottles, and tin cans in a blue plastic box which were collected and sorted by municipal operators.

The overwhelming success of these programs, with participation rates over 80%, indicated that citizens were highly concerned about protecting their environment and were willing to make an effort to reduce the amount of solid waste being sent to landfill sites.

Government Action

The Ontario Government had legislated new

regulations for the softdrink industry, under the Environmental Protection Act, requiring specific percentages of recyclable bottles. It had also stated a goal of a 25% reduction in the use of landfill sites by 1992. Other industries were speculating that the provincial government would soon require funding from them for recycling programs and were aware that legislation similar to the softdrink industry might also follow. Ontario was seen to be the leading province in dealing with environmental issues. Other provinces were expected to introduce similar programs after they had been proven in Ontario.

Procter and Gamble's Environmental Policy

P&G Inc. considered itself to be a community leader in terms of being a responsible business organization that contributed to the well-being of the environment. By 1989 it had already undertaken a number of environmental initiatives including:

- ***Using recycled materials for P&G product cartons and shipping containers. For example, laundry detergent cartons were made of 100% recycled paper.***
- ***Introducing a paper recycling program in the corporate head office.***
- ***Eliminating heavy metals from printing inks to facilitate safer incineration.***

P&G Inc.'s efforts in the solid waste area were a major responsibility of a division General Manager

and the Director of Product Development. *The corporate policy followed the generally accepted ranking of waste management priorities: source reduction, re-use, and re-cycling.*

The Downy Enviro-Pak

The Downy pouch or Enviro-Pak provided a significant reduction in solid waste after use, containing 85% less plastic than the 3 litre bottle it would refill. The pouch was similar to a plastic milk bag, but had a gusseted bottom so it could stand upright on the shelf. A consumer would cut the corner of the pouch off and then pour the product through a funnel into an empty 3 litre bottle. He or she would then add two litres of water, shake the bottle, and have three litres of fabric softener ready for use.

Given the unique environmental properties of the Downy Enviro-Pak, the launch would need some extra consideration to ensure the product was accepted by environmental groups, as well as the trade and consumers. This was evident in the problems Loblaw's had faced when some of its "green" products were disputed by environmental groups such as Pollution Probe and Friends of the Earth.

Grad Schnurr wanted to make sure that consumers accepted the Enviro-Pak as a valid environmental package without giving the impression that P&G was exploiting this concern for the sake of profits.

Several questions had to be addressed:

Should some of the Environmental lobby groups be consulted before the launch? What if they did not support the idea? Would early consultation risk the

security of the launch plans?

Conclusion

All these case studies illustrate the increasing need for environmental awareness in companies, the type of structural changes that this may require and the rewards that the whole process can accomplish in increased sales, reduced costs or improved corporate image.

ACKNOWLEDGEMENTS:

1. Prepared for NRTEE by S Bruce Doern, School of Public Administration, Carleton University.
2. This case was written by Heather A Graham in consultation with Claude-André Lachance of Dow Chemical Canada Inc and Prof. Richard C Hodgson of the Western Business School. Case material of the Western Business School is intended for the purpose of management education and development, not necessarily to illustrate proper or improper management practice. © Copyright 1990, The University of Western Ontario. Any use or duplication of material in this case is prohibited without the written consent of the Western Business School, University of Western Ontario.
3. Prepared for NRTEE by John Chenier, D Phil.
4. Prepared for NRTEE by Gary S Tallon, President Environmental Economics International.
5. Prepared for NRTEE by Simon La Traverse, Econotec Inc.
6. This case was written by Janet Lahey, MBA student, and Chris Lane, under the supervision of Prof. Adrian B Ryans, as a basis for class discussion rather than to indicate either effective or ineffective handling of an administrative situation. Certain non-public data in this case has been disguised to protect proprietary information. © Copyright 1990 by the University of Western Ontario. Any use or duplication of material in this case is prohibited without the written consent of the Western Business School, University of Western Ontario.

10 A Final Word

The following is taken from an address by David L Robertson, Senior Vice-President, Royal Bank of Canada.

Environmental Concerns

As a corporate citizen and lender, we've spent considerable time developing policy statements that address environmental concerns. It's been a challenging but stimulating task.

We know that environmental considerations can affect us in a number of ways. Environmental problems, for example, represent risk and evaluating risk is our stock in trade when it comes to lending decisions. As you might expect, we become even more attentive when risk is associated with potentially complex problems of liability that could involve ourselves and our customers.

However, contrary to popular belief and media opinion, bankers are also optimists. In every cloud of risk, there is a silver lining of opportunity.

Our clients have been quick to remind us of this. In effect, protection of the environment represents a growth industry. It is a sure winner, and one which we are more than willing to support in our investment activities and lending considerations - provided that companies meet the usual criteria of good credit risk.

Environmental considerations are not new to us at the Royal. We have always expected that corporate

clients adhere to all laws, including environmental regulations, in qualifying for credit. But today, both risks and opportunities in this regard have considerable magnitude.

The environment is, quite rightly, at the top of the public agenda. Decisions made in the courts and among governments are increasingly in the spotlight of public scrutiny. Bankers, like other people, share the public's growing concern for environmental protection. Not only are we worried about risk and liability, we have to consider the ethical obligations that must be met.

We have worked hard to translate that ethical concern into a set of practical principles designed to guide us in making environment-related decisions and also to establish a policy that allows us to work in harmony with our clients.

In essence, this policy stresses the interconnection between a healthy environment and sound economic growth. It commits the Royal Bank to managing its operations and shaping its activities to promote that ideal and it encourages our staff to seek ways of helping clients meet the needs of the present without compromising those of the future.

Environmental Opportunities

In developing our environmental policy, we took pains to ensure that it wasn't simply something to be hung on a wall just for show. We wanted it to be a practical extension of the way we normally conduct our activities and our relationships with clients.

We have tried to show that our commitment to the economic success of our clients is as strong as

ever. At the same time we are encouraging environmental responsibility.

This does not mean that we are steering clear of lending activities in environmentally-sensitive industries. Definitely not. We continue to assess risks on a company-to-company basis and judge each credit application on its fundamental merits, including those related to the environment.

We are interested in financing eco-smart companies and there are a variety of them. They may specialize in environmental consulting, engineering, waste management and pollution control or they may manufacture and market "green" products.

This sector already consists of more than 3,300 firms employing almost 150,000 Canadians. It is a healthy industry, with annual estimated growth of 8 per cent a year to 1993 - almost four times the projected national growth rate.

This is also one of the sectors that has been targeted by our venture capital unit, the Royal Bank Capital Corporation. This subsidiary participates as an equity investor in growth companies that have above-average profit potential and proven management teams.

Two examples of companies in the environmental arena that are in the Royal Bank Capital Corporation's investment portfolio are:

- A firm that is developing environmentally-safe herbicides and pesticides, as well as an alternative to chemical fertilizers.
- A company that provides the petroleum industry with systems for containing hazardous liquids. Demand is so great for their product that they can't keep up with production.

Conservation at the Royal Bank

In addition to promoting environmental protection as a lender, and green products as an investor, the Royal is also striving to meet good conservation standards.

We are one of the largest consumers of paper in the country and we are very conscious of paper recycling. Operations in some of our larger centres have been recycling paper for over 15 years and we are working to expand those activities.

In terms of progress to date, we send about 100 tons of paper a month to recycling centres across the country. To put it in perspective, that represents about 1,900 trees per month or over 22,000 trees per year.

We are also taking this paper back into our system and finding a growing number of applications for it. Circular letters, which go out every day to all units across our domestic and international system, are now printed on recycled paper. Annually that represents 3.1 million pieces of paper. There is also an envelope which was developed in conjunction with Canada Post to ensure that an address printed on the recycled paper could be read by their electronic sorters.

We have also arranged to recycle plastic-based materials, including the 6 million night deposit bags that our customers use every year.

In addition, we are contributing to environmental protection by building awareness and fostering dialogue. We recently sponsored the printing of *Home and Family Guide: Practical Action for the Environment*. This book, prepared by the Harmony Foundation, provides Canadians with practical ideas

for contributing to a better environment.

Conclusion

The progress we are making is being achieved with the co-operation of various other parties. We strongly believe that co-operation is the way to go in developing better environmental management.

We are dedicated to working with all parties to help make Canada a solid example of co-operative effort in protecting both the environment and the economy.

We must all begin *urgently* to analyze the benefits and costs of environmental action. Nationally we are dealing with broad and complex problems that affect each of us in different ways. The solutions must be sought jointly - not on an adversarial basis.

That entails improved dialogue and a consistent and cohesive approach on the part of governments, corporations, labour and environmental groups.

Sustainable development will not be achieved, and economic and environmental problems will not be solved, through rhetoric or endless confrontation. Our best weapons are co-operation, hard work and common sense.

Notes

Further Case Studies and Reports

The following case studies and reports are also of interest to managers and are available from NRTEE:

- ***Noranda Inc: Modern Environmental Management System***
- ***A Changing Role for the Canadian Labour Congress***
- ***The Canadian Chemical Producers' Association: Responsible Care Initiative***
- ***Canadian Institute of Chartered Accountants: Environmental Accounting and Auditing***
- ***Lessons in Love: Accounting and the Environment***
- ***How is Business Responding?***
- ***The Canadian Manufacturers' Association: Sustainable Development***
- ***Environment Canada: Incorporating Sustainable Development into Economic and Regional Development***
- ***Canada's New Green Plan***
- ***Environment Ontario: The Industrial Waste Diversion Program Guide to Applicants***
- ***Challenge Paper: Message from the Ontario Round Table on the Environment and the Economy***
- ***Closing the Loop: The 3Rs of Waste Management***
- ***Environmental Success Stories Bank/ Contacts List***
- ***The Dow Chemical case study is available direct from Dow Chemical Canada***

Notes

Sustainable Development: A Manager's Handbook

Sustainable Development has changed the management paradigm. Sustainable Development recognizes the desirability of economic growth and change, and acknowledges the right to pursue economic goals, including sales and profits. However, for Development to be Sustainable, to-day's decisions must allow future generations to enjoy a quality of life at least as desirable as ours.

Of particular concern is damage to the environment, since such damage may pose a threat to future human health, and may severely restrict the opportunities of future generations. This handbook will alert you to today's Sustainable Development issues, it will assist you in coping successfully with new risks and challenges, and it will encourage you to investigate new opportunities. Becoming more knowledgeable about Sustainable Development is good business practice.

NATIONAL ROUND TABLE SERIES ON SUSTAINABLE DEVELOPMENT

Preserving Our World

Sustainable Development: A Manager's Handbook

The National Waste Reduction Handbook

Decision Making Practices for Sustainable Development

On the Road to Brazil: The Earth Summit

Aussi disponible en français



National Round Table on the Environment and the Economy

Table ronde nationale sur l'environnement et l'économie

1 Nicholas Street Suite 520 Ottawa Ontario K1N 7B7

ISBN 1-895643-00-7